



KINVARO



G*GRASS®

KINVARO LIFTER SYSTEMS

Modern design, innovative technology and ease of operation for wall cabinetry.





Exclusive lifter systems – Kinvaro provides the perfect solution for every application.
Parallel lifters. Bi-fold lifters. Lift-up systems.

Wall cabinets have become a popular storage solution for the kitchen and office area.

Our Kinvaro lifter systems redefine the principle of the classic wall cabinet. Stable and reliable in movement, easy and quiet in application, ergonomically well designed and comfortable to operate. Kinvaro represents innovative design and functional movement.



KINVARO LIFTER SYSTEMS

Easy to open with complete access to the cabinet contents and gentle, silent closing of the lift door. These are the key features of the Kinvaro Lifter System.



KINVARO L-80
PARALLEL LIFTER SYSTEM

The single panel front opens upwards in a smooth, even motion, with absolute precision and in parallel with the wall cabinet. The stay put feature holds the front in any required position - regardless of door weight and material. In closing: the integrated Soft-closing damper system is fully adjustable and ensures a smooth and uniform closing action for all door weights.



KINVARO F-20
BI-FOLD LIFTER SYSTEM

In one effortless motion, the Bi-fold Lifter system is designed to move two horizontal doors together to offer maximum access to the cabinet's interior. Yet the lower door is still in easy reach for closing. Lifter doors can be built with flat or wood panels for a traditional look or with glass inserts and aluminum frames to appeal to a more contemporary style.

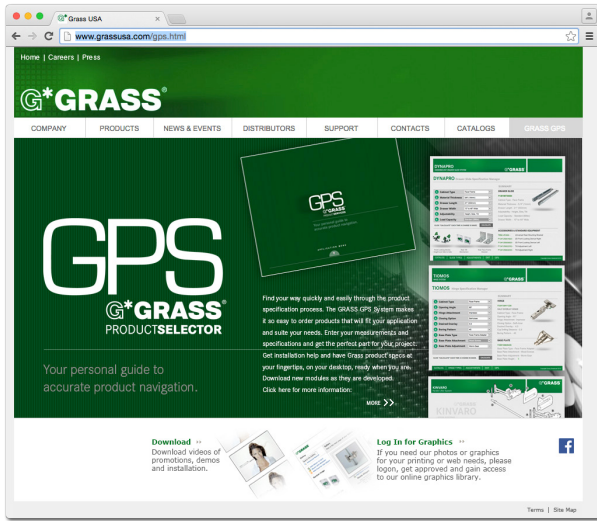


KINVARO T-SERIES
LIFT-UP SYSTEMS

Distinguished by its simplicity, the T-series Lifter opens a single door that pivots the door to the top of the wall cabinet. The integrated Soft-close and its stay put feature contribute to the functionality of these Lifters. Enhance your door design with glass inserts or aluminum frames. Now available for face frame applications.

KINVARO

Calculator



Download the Calculator

- Download the Grass GPS at www.grassusa.com/gps.html
- Unzip the file
- Select the Lifter Type
- Calculate!

Introducing the KINVARO Calculator!

The Kinvaro GPS takes the guess work out of choosing a lifter

Determine which Kinvaro lifter works best for your application. Choose the lifter type and enter the door specifications. The Kinvaro Calculator will determine which lifter should be used for your door size and provides the product number for ordering.

Intuitive Interface

The Kinvaro Calculator provides you with lifter options, part descriptions, weight calculator, item numbers and adjustment instructions.



Application range

Flap weight from 1.6 to 14.6 kg (3.5 lb to 32.1 lbs)

Flap size: width 450 - 1200 mm (17 3/4" - 47 1/4")

Calculation of door weight (all measurements in inches)

Flap width x flap height x flap thickness x density⁽²⁾ + handle weight⁽³⁾ = flap weight

Example: 23 5/8" x 15 3/4" x 3/4" x .0307 lb/in³ + 1.1 lb = 9.67 lbs

Calculation of door width (all measurements in inches)

$$\frac{\text{Flap weight} - \text{handle weight}^{(3)}}{\text{Flap height} \times \text{flap thickness} \times \text{density}^{(2)}} = \text{Flap Width}$$

Example:
$$\frac{9.9 \text{ lb} - 1.1 \text{ lb}}{15 \frac{3}{4}" \times \frac{3}{4}" \times .0307} = 24 \frac{9}{32}"$$

⁽²⁾ Density: pine = 0.0163 lb/in³, chipboard = .0235 lb/in³, MDF = .0307/in³

⁽³⁾ Bar handles must be calculated with 0.22 lb per 4" handle width when calculating the flap weight. Other weights are possible. When using higher weights, please consult the manufacturer. We recommend performing a trial mounting before series application.

KINVARO LIFTER SYSTEMS

Table of Content

	Product description		Page
	Kinvaro F-20 Bi-fold Lifter • Holds flap securely in any position • Adjustable spring force • Tool free attachment of door assembly to cabinet • Soft-closing with integrated adjustable damping • For frame and frameless cabinetry		6
	Kinvaro L-80 Parallel Lifter • Holds flap securely in any position • Extremely smooth movement • Adjustable spring force • Soft-closing with integrated adjustable damping • For frame and frameless cabinetry		12
	Kinvaro T-65 lift-up fitting • Variable opening angle - holds flap securely at any angle between 45° and 100° • Allows additional cabinet installation above • Soft-closing with integrated adjustable damping • For light to medium weight doors • For frame and frameless cabinetry		16
	Kinvaro T-71 lift-up fitting • Variable opening angle - holds flap securely at any angle between 45° and 110° • Allows additional cabinet installation above • Self-closing with integrated adjustable damping • Tool free attachment of door to cabinet • For frame and frameless cabinetry		20
	Kinvaro T-76 lift-up fitting • Variable opening angle - holds flap securely at any angle between 45° and 110° • Allows additional cabinet installation above • Self-closing with integrated adjustable damping • Tool free attachment of door to cabinet • For frame and frameless cabinetry		24
	Kinvaro T-57 lift-up fitting • Opening angle adjustable to 75° or 90° • Simple installation • Allows additional cabinet installation above		28
	Kinvaro Assembly Aids • Installation accessories for Kinvaro Lifters		31
	Kinvaro T-105 flap stay • Variable opening angle - holds flap securely at any angle between 45° and 105° • For wood and aluminum doors • Adjustable spring force • Convenient access, front lifts clear of the work area • Allows additional cabinet installation above		32

KINVARO

F-20 Bi-Fold Lifter



- 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
- Hinge with 3-dimensional adjustment – height, side, depth
- Opening limiter adjustable to 90°
- Wide range of applications for many different flap materials
- Fast, tool-free clip fitting of the front
- Face Frame adapter available
- Pre-assembled Euro screws and positioning pins for easy fixture of the fitting to the side wall
- Extremely strong
- Weight 9.7 to 42.3 lbs. (4.4 to 19.2 kg)
- Range of flaps:
Width: 15 3/4" – 47 1/4" (400 – 1200 mm)
Height: 22 1/16" – 35 7/16" (560 – 900 mm)
- Cover caps in grey

APPLICATION RANGE

Cabinet height	Guide lever	Flap weight incl. handle lbs. (kg)		
		Spring B	Spring C	Spring D
22 1/16" – 23 19/32" (560 – 599)	Type 3	9.7 – 27.8 (4.4 – 12.6)	–	–
23 5/8" – 25 9/16" (600 – 649)	Type 4	–	15.0 – 34.8 (6.8 – 15.8)	–
25 19/32" – 27 17/32" (650 – 699)	Type 5	–	14.8 – 37.3 (6.7 – 16.9)	–
27 9/16" – 29 1/2" (700 – 749)	Type 6	–	14.3 – 36.2 (6.5 – 16.4)	–
29 17/32" – 31 15/32" (750 – 799)	Type 7	–	–	19.0 – 42.3 (8.6 – 19.2)
31 1/2" – 33 7/16" (800 – 849)	Type 7	–	–	17.2 – 39.7 (7.8 – 18.0)
33 15/32" – 35 7/16" (850 – 900)	Type 7	–	–	14.3 – 36.4 (6.5 – 16.5)

ORDER INFORMATION

Kinvaro F-20 set				
Cabinet height	Cover cap grey			
	Spring B	Spring C	Spring D	PU
560 – 599	F152145238201			1
600 – 649		F152145241201		1
650 – 699		F152145243201		1
700 – 749		F152145244201		1
750 – 900			F152145247201	1

For automatic Kinvaro door calculations:
Use the GRASS
Kinvaro Calculator at
www.grassusa.com/kinvaro_calculator.html



Aluminum frame adapter, Kinvaro F-20 set			
Description	Overlay	Item No.	PU
Aluminum frame adapter (2x) for narrow aluminum frames (19 mm) with fixing screws (8x)	13 – 17	F152145054502	1

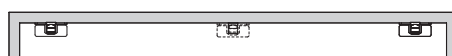
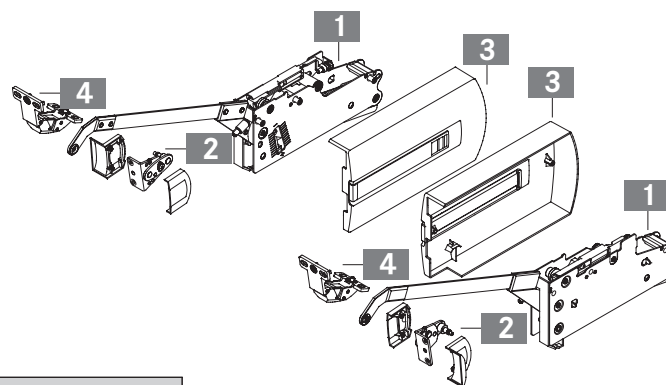
Face frame adapter, Kinvaro F-20 set			
Description	Overlay	Item No.	PU
Face frame adapter (2x) for wood frames with fixing screws (8x)	13 – 17	F151135906201	1

Note:

Please order separately: Tiomos 120° hinges with spring, without Soft-close, 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** Break away center hinges (2x)
- Paper template (1x), Installation instructions (1x)

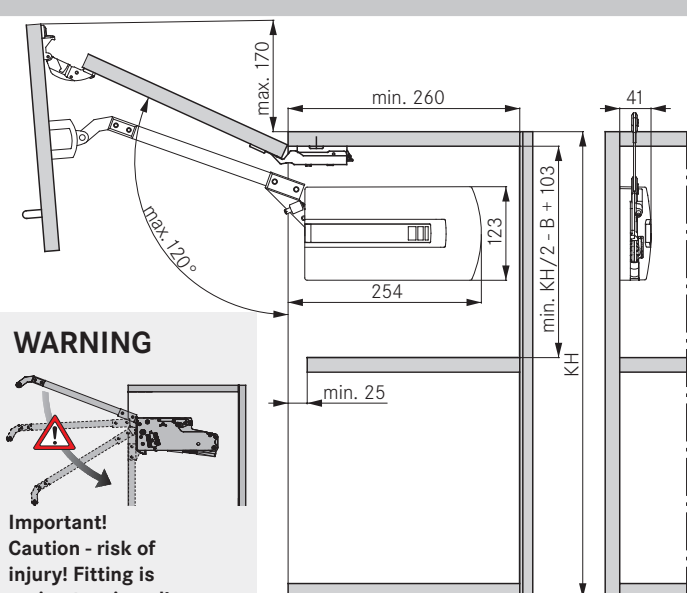
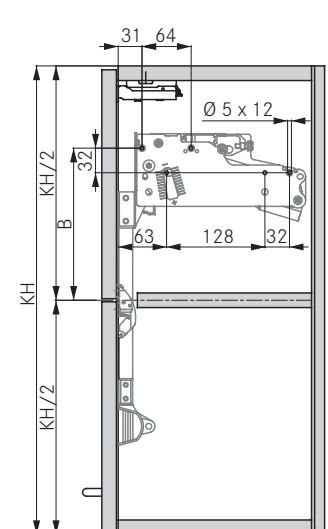
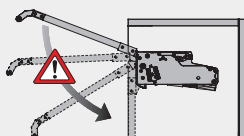
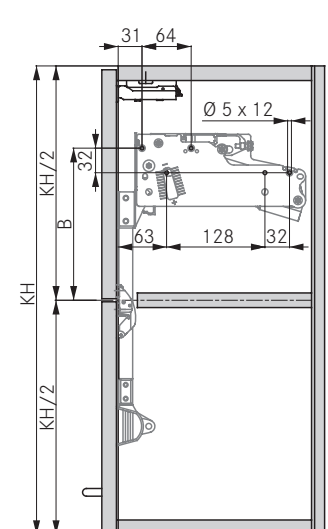
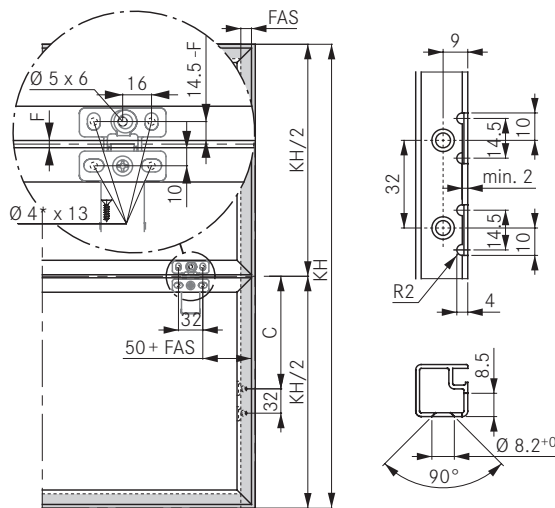
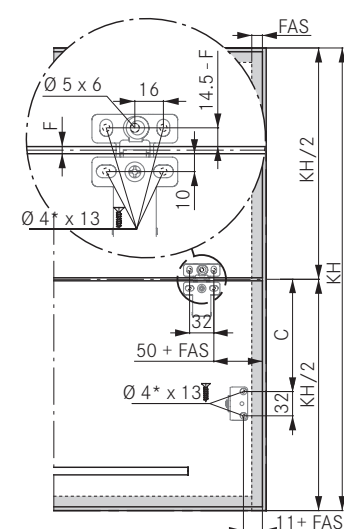
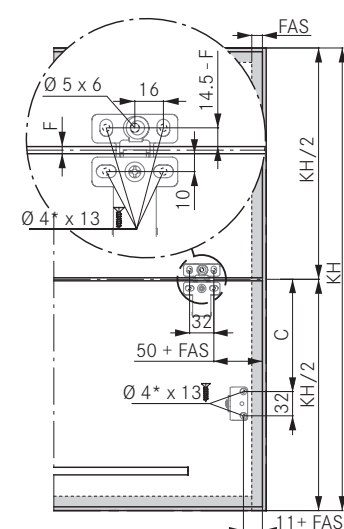


Number of hinges at top panel
For cabinet widths ≥ 900 mm, 3 hinges are recommended.

PU = Packing Unit

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR CABINET HEIGHT 560 – 799

All dimensions in millimeters

Required space		Side wall drilling positions	Side wall drilling distance		
			KH	Type	B
WARNING  Important! Caution - risk of injury! Fitting is spring-tensioned!			560 – 569	3	183
			570 – 579	3	168
			580 – 589	3	153
			590 – 599	3	138
			600 – 609	4	208
			610 – 619	4	198
			620 – 629	4	178
			630 – 639	4	168
			640 – 649	4	158
			650 – 699	5	225
			700 – 749	6	235
			750 – 799	7	250
Front: installation for flaps with standard aluminum frame profiles (19 mm)		Front: installation for wooden and frame flaps (min. 45 mm width)	Front: drilling distance		
			KH	Type	C
* Pre-drilling required - Ø 2 mm			560 – 569	3	145
			570 – 579	3	160
			580 – 589	3	175
			590 – 599	3	190
			600 – 609	4	138
			610 – 619	4	148
			620 – 629	4	168
			630 – 639	4	178
			640 – 649	4	188
			650 – 699	5	146
			700 – 749	6	156
			750 – 799	7	166
Calculation of flap weight Flap width x flap height x flap thickness x density ¹ + weight of handle ² = weight of flap ¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³ ² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting					

Metric Conversions

MM	2	3.5	4	5	8.5	9	10	11	13	14.5	15	16	17	19	25	31	32
INCH	³ / ₃₂	¹ / ₈	⁵ / ₃₂	³ / ₁₆	¹¹ / ₃₂	¹¹ / ₃₂	¹³ / ₃₂	⁷ / ₁₆	¹ / ₂	⁹ / ₁₆	¹⁹ / ₃₂	⁵ / ₈	²¹ / ₃₂	³ / ₄	³¹ / ₃₂	¹⁷ / ₃₂	¹ / ₄
MM	40	41	45	50	63	64	103	119	123	128	170	174	180	181	186	254	260
INCH	¹ / ₁₆	¹ / ₈	¹ / ₄	¹ / ₂	⁵ / ₈	¹ / ₂	⁴ / ₁₆	⁴ / ₁₆	⁴ / ₁₆	⁵ / ₁₆	⁶ / ₁₆	⁶ / ₁₆	⁷ / ₁₆	⁷ / ₁₆	⁷ / ₁₆	10	¹⁰ / ₁₆

LEGEND

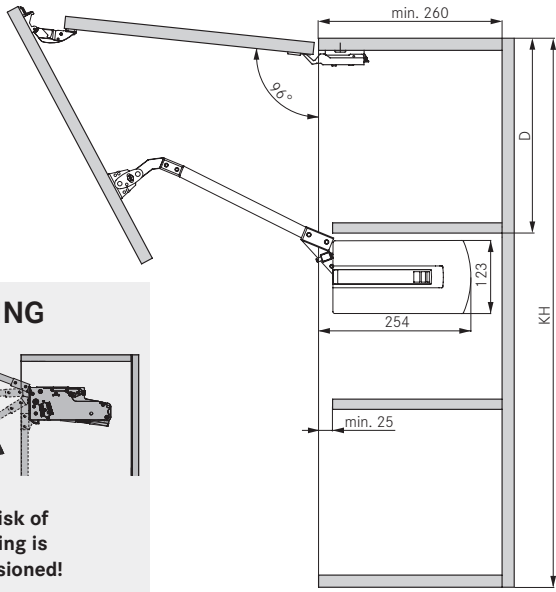
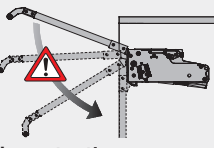
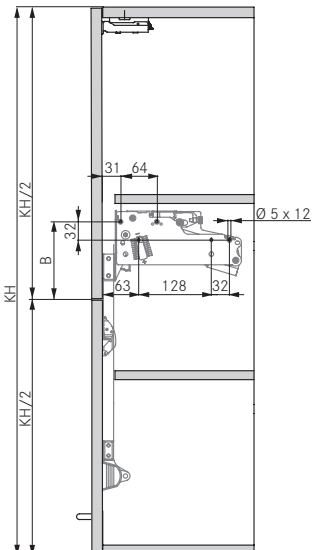
B	Drilling dimension - side wall
C	Drilling dimension - front
F	Reveal
FAS	Front overlay, side
KH	Cabinet height
FAO	Front overlay, top

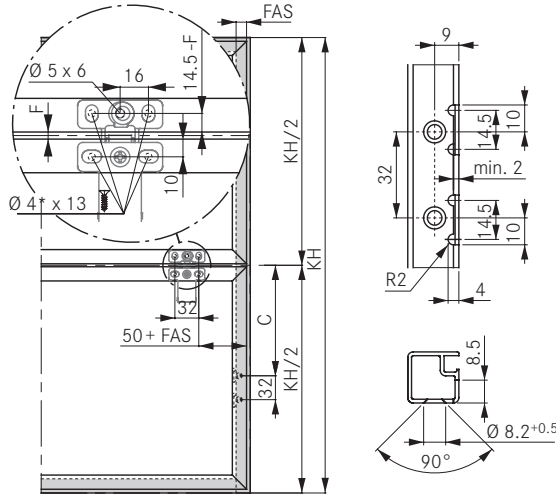
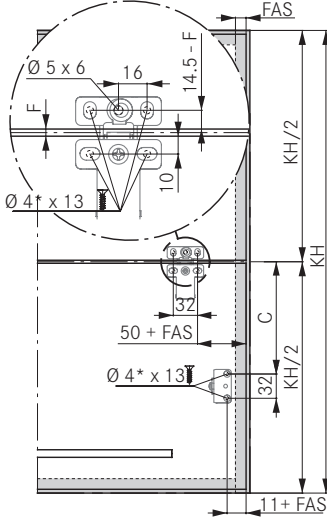
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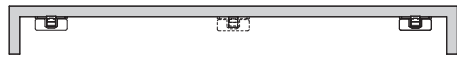
F-20 Bi-Fold Lifter

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR CABINET HEIGHT 800 – 900

All dimensions in millimeters

Required space		Side wall drilling positions	Side wall drilling distance		
 WARNING  Important! Caution - risk of injury! Fitting is spring-tensioned!			KH	Type	B
			800 – 849	7	103
			850 – 900	7	110
			Shelf distance		
		KH	D		
		800 – 849	≤293		
		850 – 900	≤312		

Front: installation for flaps with standard aluminum frame profiles (19 mm)		Front: installation for wooden and frame flaps (min. 45 mm width)	Front: drilling distance		
 * Pre-drilling required - Ø 2 mm		 * Pre-drilling required - Ø 2 mm	KH	Type	C
			800 – 900	7	304

Calculation of flap weight		Number of hinges for top panel	
Flap width x flap height x flap thickness x density ¹ + weight of handle ² = weight of flap			
¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³			
² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting			
		 For cabinet widths ≥ 900mm, 3 hinges recommended for top panel	

Metric Conversions

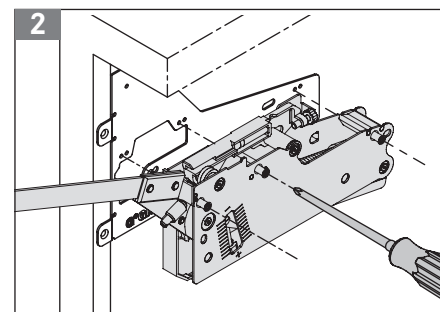
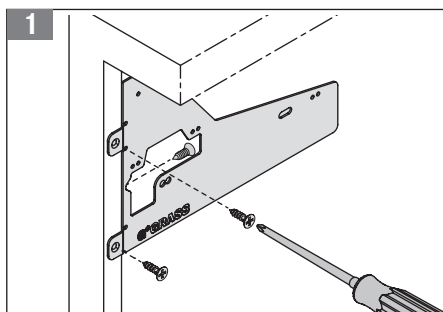
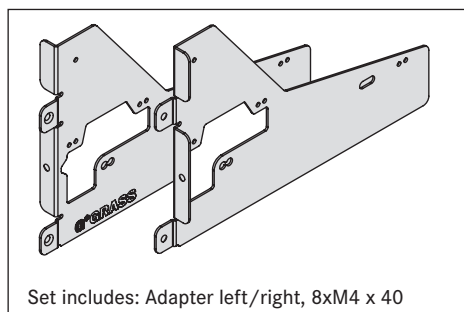
MM	2	3.2	3.5	4	5	5.5	8	8.5	9	10	11	14.5	15	16	19	25	31
INCH	³ / ₃₂	¹ / ₈	¹ / ₈	⁵ / ₃₂	³ / ₁₆	⁷ / ₃₂	⁵ / ₁₆	¹¹ / ₃₂	¹¹ / ₃₂	¹³ / ₃₂	⁷ / ₁₆	⁹ / ₁₆	¹⁹ / ₃₂	⁵ / ₈	³ / ₄	³¹ / ₃₂	¹ / ₂
MM	32	40	41	45	48	50	63	64	96	119	123	128	170	186	254	260	
INCH	¹ / ₄	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	¹ / ₂	

LEGEND

B	Drilling dimension - side wall
C	Drilling dimension - front
F	Reveal
FAS	Front overlay, side
KH	Cabinet height
D	Distance
FAO	Front overlay, top
FH	Flap height
LWK	Inside cabinet width
LHK	Inside cabinet height

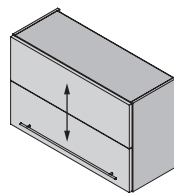
ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR FACE FRAME CABINET

All dimensions in millimeters

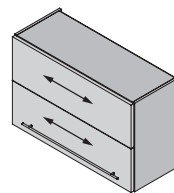


Required space	Side wall drilling positions	Side wall drilling distance																																							
		<table><tr><th>LHK</th><th>Type</th><th>B</th></tr><tr><td>528 - 537</td><td>3</td><td>183</td></tr><tr><td>538 - 547</td><td>3</td><td>168</td></tr><tr><td>548 - 557</td><td>3</td><td>153</td></tr><tr><td>558 - 567</td><td>3</td><td>138</td></tr><tr><td>568 - 577</td><td>4</td><td>208</td></tr><tr><td>578 - 587</td><td>4</td><td>198</td></tr><tr><td>588 - 597</td><td>4</td><td>178</td></tr><tr><td>598 - 607</td><td>4</td><td>168</td></tr><tr><td>608 - 617</td><td>4</td><td>158</td></tr><tr><td>618 - 627</td><td>5</td><td>225</td></tr><tr><td>668 - 717</td><td>6</td><td>235</td></tr><tr><td>718 - 767</td><td>7</td><td>250</td></tr></table>	LHK	Type	B	528 - 537	3	183	538 - 547	3	168	548 - 557	3	153	558 - 567	3	138	568 - 577	4	208	578 - 587	4	198	588 - 597	4	178	598 - 607	4	168	608 - 617	4	158	618 - 627	5	225	668 - 717	6	235	718 - 767	7	250
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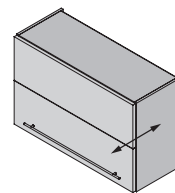
Calculation of flap weight
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(HV) Height adjustment
+/- 1.5 mm



(SV) Side adjustment
+/- 2 mm



(TV) Depth adjustment
+/- 0.5 mm

All adjustments can be carried out independently of each other.

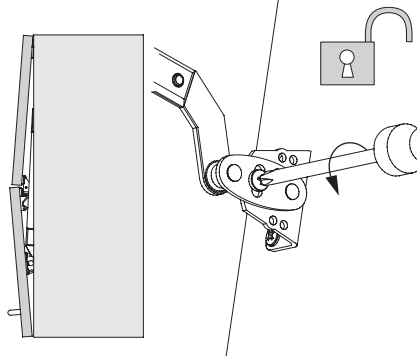
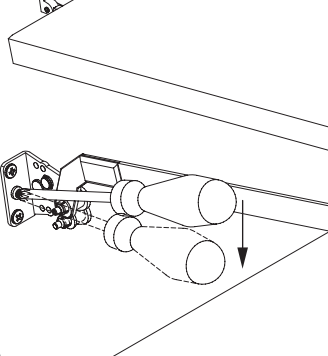
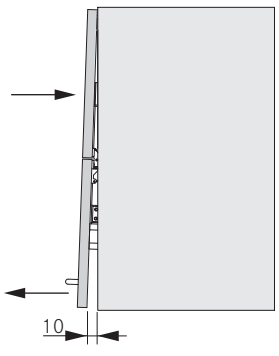
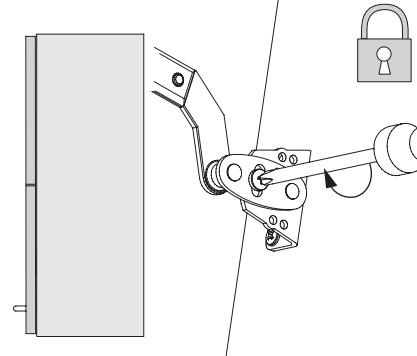
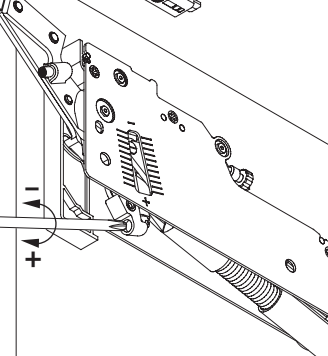
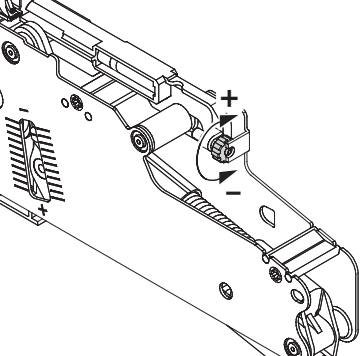
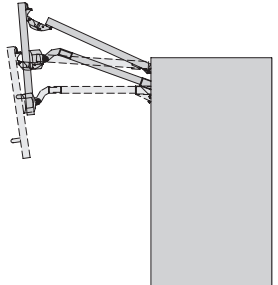
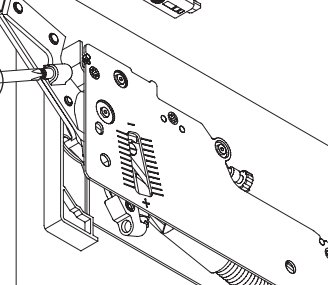
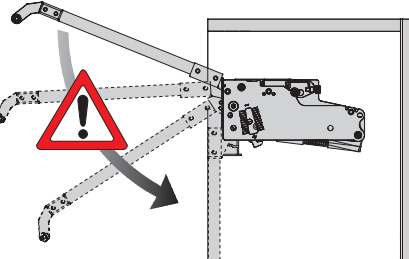
ADJUSTMENT OPTIONS FOR HINGE IN CABINET TOP PANEL

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

ADJUSTMENT OPTIONS FOR INTERMEDIATE HINGE

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

ADJUSTMENT OPTIONS

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

KINVARO

L-80 Parallel Lifter



- 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
- Face Frame adapter available
- Pre-assembled Euro screws and positioning pins for easy fixture of the fitting to the side wall
- Extremely strong
- Weight 4 to 32 lbs. (1.9 to 14.6 kg)
- Range of flaps:
Width: 17 $\frac{23}{32}$ " – 47 $\frac{1}{4}$ " (450 – 1200 mm)
Height: 13 $\frac{25}{32}$ " – 23 $\frac{5}{8}$ " (350 – 600 mm)
- Cover caps in grey

APPLICATION RANGE

Cabinet height	Guide lever	Flap weight incl. handle lbs. (kg)		
		Spring A	Spring B	Spring C
13 $\frac{25}{32}$ " – 14 $\frac{17}{32}$ " (350 – 369)	Type 1	5.5 – 14.3 (2.5 – 6.5)	13.2 – 20.9 (6.0 – 9.5)	–
14 $\frac{9}{16}$ " – 15 $\frac{5}{16}$ " (370 – 389)	Type 2	5.1 – 13.2 (2.3 – 6.0)	12.1 – 19.8 (5.5 – 9.0)	18.7 – 21.2 (8.5 – 9.6)
15 $\frac{11}{32}$ " – 16 $\frac{3}{32}$ " (390 – 409)	Type 3	4.6 – 12.1 (2.1 – 5.5)	11.0 – 18.7 (5.0 – 8.5)	17.6 – 22.3 (8.0 – 10.1)
16 $\frac{1}{8}$ " – 16 $\frac{7}{8}$ " (410 – 429)	Type 4	4.2 – 11.0 (1.9 – 5.0)	9.9 – 17.6 (4.5 – 8.0)	16.5 – 32.2 (7.5 – 14.6)
16 $\frac{15}{16}$ " – 23 $\frac{5}{8}$ " (430 – 600)	Type 5	4.4 – 9.9 (2.0 – 4.5)	8.8 – 16.5 (4.0 – 7.5)	15.4 – 32.2 (7.0 – 14.6)

ORDER INFORMATION

Kinvaro L-80 set				
Cabinet height	Cover cap grey			
	Spring A	Spring B	Spring C	PU
350 – 369	F152145248201	F152147444201	–	1
370 – 389	F152147440201	F152145249201	F152145250201	1
390 – 409	F152147441201	F152145251201	F152145252201	1
410 – 429	F152147442201	F152145281201	F152145282201	1
430 – 600	F152147443201	F152145253201	F152145254201	1

For automatic Kinvaro door calculations:
Use the GRASS
Kinvaro Calculator at
www.grassusa.com/kinvaro_calculator.html

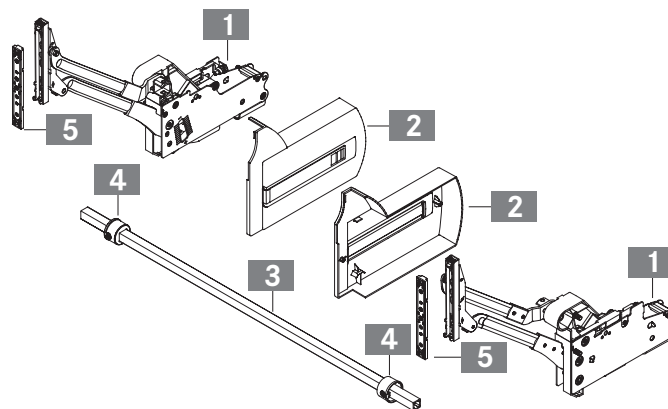


Aluminum frame adapter, Kinvaro L-80 set			
Description	Overlay	Item No.	PU
Aluminum frame adapter (2x) for narrow aluminum frames (19 mm) with fixing screws (4x)	13 – 17	F152145033211	20

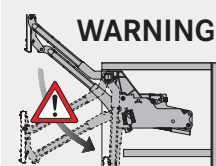
Face Frame Adapter, Kinvaro L-80 set			
Description	Overlay	Item No.	PU
Face frame adapter, (2x) for wood screws with fixing screws (8x)	13 – 17	F151135906201	1

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)



PU = Packing Unit



WARNING

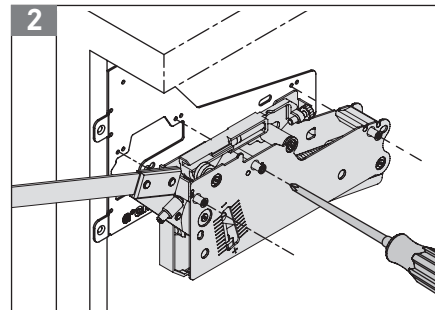
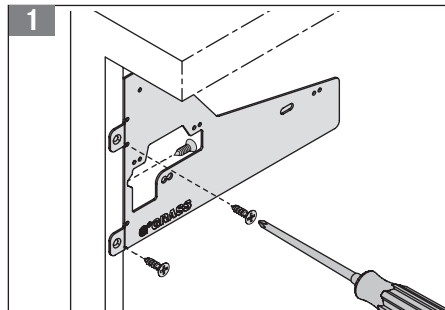
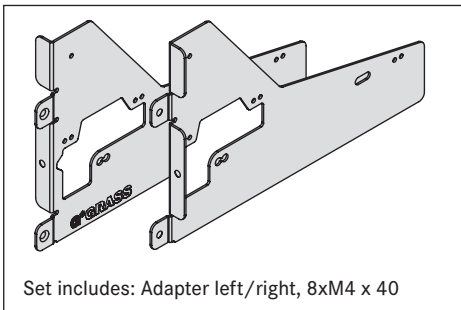
Important!
Caution - risk of injury! Fitting is spring-tensioned!

KINVARO

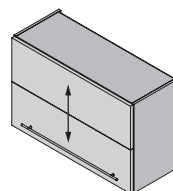
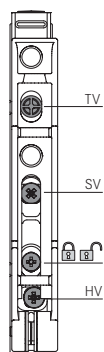
L-80 Parallel Lifter

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR FACE FRAME CABINET

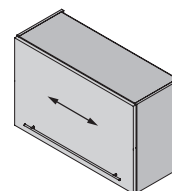
All dimensions in millimeters



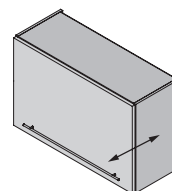
Required space		Side wall drilling positions	Side wall drilling distance																								
			<table><tr><th>Type</th><th>min. LHK</th><th>D1</th><th>D2</th></tr><tr><td>1</td><td>312</td><td>161</td><td>304</td></tr><tr><td>2</td><td>332</td><td>176</td><td>337</td></tr><tr><td>3</td><td>352</td><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></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
Type	min. LHK	D1	D2																								
1	312	161	304																								
2	332	176	337																								
3	352	191	370																								
4	372	206	403																								
5	392	221	436																								
			Cornice projection																								
			<table><tr><th>F</th><th>KP max.</th></tr><tr><td>2</td><td>22</td></tr><tr><td>3</td><td>35</td></tr><tr><td>4</td><td>39</td></tr></table>	F	KP max.	2	22	3	35	4	39																
F	KP max.																										
2	22																										
3	35																										
4	39																										
Front: installation for flaps with narrow aluminum frame profiles (19 mm)		Front: installation for wooden and frame flaps (min. 45 mm width)	Front: drilling distance																								
			<table><tr><th>KH</th><th>Type</th><th>X</th></tr><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></table>	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																									
			Cutting dimensions Cross bar																								
			* Pre-drilling required - Ø 2 mm																								
			* Pre-drilling required - Ø 2 mm																								
Calculation of flap weight																											
Flap width x flap height x flap thickness x density ¹ + weight of handle ² = weight of flap																											
¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³																											
² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting																											



(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	
Adjusting the spring force	Adjusting the damping system	Note
		WARNING

KINVARO

T-65 lift-up flap fitting



- Variable opening angle - holds flap securely at any angle between 45° and 100°
 - Extremely comfortable opening due 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 aluminum frames with glass insert
 - Weight 1.5 to 16.3 lbs. (0.7 to 7.4 kg)
 - Face Frame adapter available
- Range of flaps:
Width: up to 47 1/4" (up to 1200 mm)
Height: 9 27/32" - 23 5/8" (250 - 600 mm)
 - Cover caps in grey

APPLICATION RANGE

Cabinet height	Flap weight incl. handle lbs.(kg)		
	Spring on one side yellow	Spring on both sides yellow	Spring on both sides black
9 27/32" (250)	2.0 - 4.6 (0.9 - 2.1)	4.0 - 9.3 (1.8 - 4.2)	5.3 - 16.3 (2.4 - 7.4)
11 13/16" (300)	1.5 - 3.7 (0.7 - 1.7)	3.1 - 7.5 (1.4 - 3.4)	4.4 - 13.9 (2.0 - 6.3)
13 25/32" (350)	-	2.2 - 6.4 (1.0 - 2.9)	3.7 - 11.9 (1.7 - 5.4)
15 3/4" (400)	-	1.8 - 5.5 (0.8 - 2.5)	3.3 - 10.4 (1.5 - 4.7)
17 23/32" (450)	-	1.5 - 4.9 (0.7 - 2.2)	2.9 - 9.3 (1.3 - 4.2)
19 11/16" (500)	-	1.3 - 4.4 (0.6 - 2.0)	2.9 - 8.6 (1.3 - 3.9)
21 21/32" (550)	-	-	2.9 - 7.5 (1.3 - 3.4)
23 5/8" (600)	-	-	2.9 - 6.8 (1.3 - 3.1)

ORDER INFORMATION

Kinvaro T-65 set					
Description	Springs	Version for	Overlay	Item No.	
				Cover cap grey	PU
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	F151147682201	1
		aluminum	14	F151147679201	1
			17	F151147681201	1

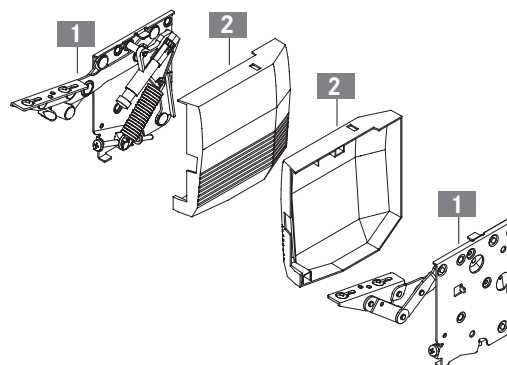
For automatic Kinvaro door calculations:
Use the GRASS Kinvaro Calculator at
www.grassusa.com/kinvaro_calculator.html



Face Frame Adapter, Kinvaro T-65 Kit			
Description	Overlay	Item No.	PU
Face frame adapter (2x) for wood frames with fixing screws (8x)	13 - 17	F151135905201	1

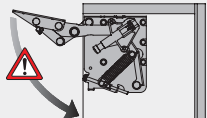
Kinvaro T-65 set comprises:

- 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)



PU = Packing Unit

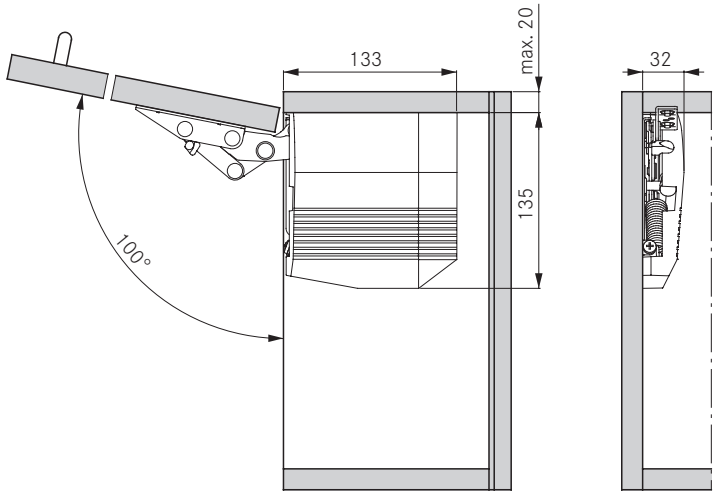
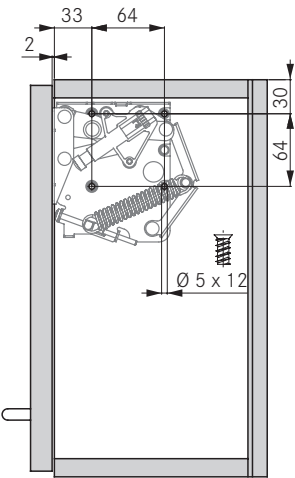
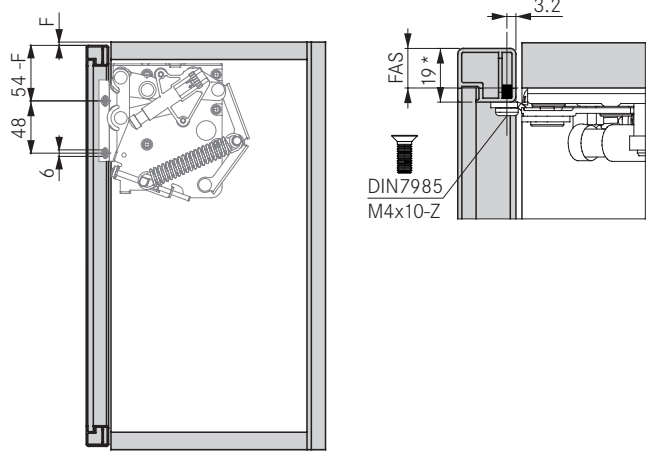
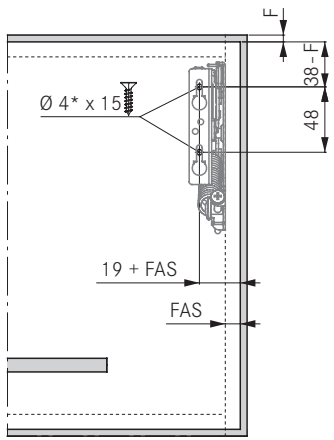
WARNING



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

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimeters

Required space	Side wall drilling positions
	
Front: installation for flaps with narrow aluminum frame profiles (19 mm)	Front: installation for wooden and frame flaps (min. 45 mm width)
 * Narrow aluminum frame profile (19 mm)	 * Pre-drilling required - Ø 2 mm
Calculation of flap weight Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap ¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³ ² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting	

Metric Conversions

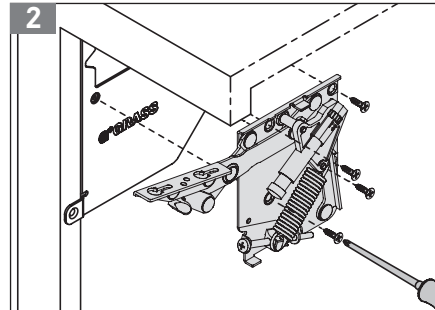
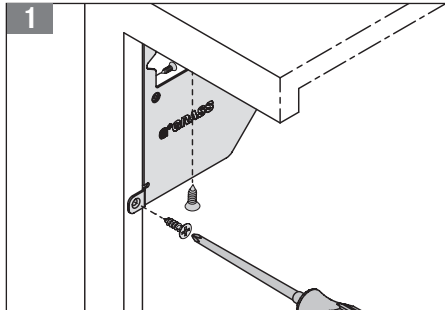
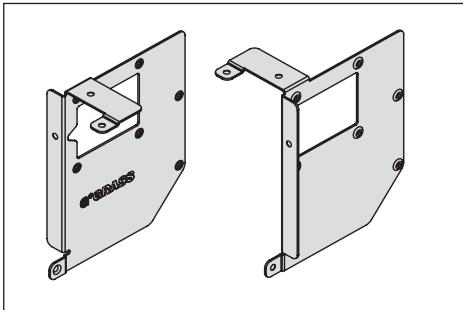
MM	2	3.5	6	7.5	8	8.5	12	12.5	13	14	17	18	19	20	29	30	31
INCH	³ / ₃₂	¹ / ₈	¹ / ₄	⁹ / ₃₂	⁵ / ₁₆	¹¹ / ₃₂	¹⁵ / ₃₂	¹ / ₂	¹ / ₂	⁹ / ₁₆	²¹ / ₃₂	²³ / ₃₂	³ / ₄	¹³ / ₁₆	¹⁵ / ₃₂	¹³ / ₁₆	¹⁷ / ₃₂
MM	32	33	34	38	40	42	45	47.5	48	54	64	133	135	144	147	156	260
INCH	¹ / ₄	¹⁵ / ₁₆	¹¹ / ₃₂	¹ / ₂	¹⁹ / ₁₆	²¹ / ₃₂	¹³ / ₄	¹⁷ / ₈	¹⁷ / ₈	²¹ / ₈	²¹ / ₂	⁵ / ₄	⁵⁵ / ₁₆	⁵¹³ / ₁₆	⁵¹³ / ₁₆	⁶⁵ / ₃₂	¹⁰ / ₄

LEGEND

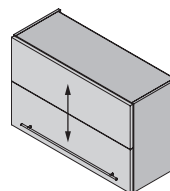
F Reveal
FAS Front overlay, side
FAO Front overlay, top

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR FACE FRAME CABINET

All dimensions in millimeters



Required space	Side wall drilling positions
Front: installation for flaps with narrow aluminum frame profiles (19 mm) * Narrow aluminum frame a profile (19mm)	Front: installation for wooden and frame flaps (min. 45 mm width) * Predrilling required - Ø 2 mm
Calculation of flap weight Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap ¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³ ² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting	



(HV) Height adjustment
+/-3 mm

ADJUSTMENT OPTIONS

All adjustments can be carried out independently of each other.

Height adjustment (HV)	Locking	
Adjusting the spring force	Adjusting the damping system	
		Note
		WARNING

KINVARO

T-71 lift-up fitting



- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening due 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 aluminum frames with glass inserts
- Fast, tool-free clip fitting of the front
- Face Frame adapter available
- Weight 3.1 to 18.7 lbs. (1.4 to 8.5 kg)
- Range of flaps:
Width: up to 47 1/4" (up to 1200 mm)
Height: 11 13/16" - 23 5/8" (300 - 600 mm)
- Cover caps in grey

APPLICATION RANGE

Cabinet height	Flap weight incl. handle lbs. (kg)	
	Spring, white	Spring, orange
11 13/16" (300)	4.6 - 16.3 (2.1 - 7.4)	5.5 - 18.7 (2.5 - 8.5)
13 25/32" (350)	4.0 - 13.9 (1.8 - 6.3)	5.1 - 16.5 (2.3 - 7.5)
15 3/4" (400)	3.7 - 11.9 (1.7 - 5.4)	4.6 - 15.0 (2.1 - 6.8)
17 23/32" (450)	3.5 - 10.4 (1.6 - 4.7)	4.4 - 12.8 (2.0 - 5.8)
19 11/16" (500)	3.3 - 8.8 (1.5 - 4.0)	4.0 - 11.0 (1.8 - 5.0)
21 21/32" (550)	3.1 - 8.2 (1.4 - 3.7)	3.5 - 10.1 (1.6 - 4.6)
23 5/8" (600)	3.1 - 7.3 (1.4 - 3.3)	3.1 - 9.3 (1.4 - 4.2)

ORDER INFORMATION

Kinvaro T-71 set					
Description	Springs	Version for	Overlay	Item No. Cover cap grey	PU
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	F151147696201	1

For automatic Kinvaro door calculations:
Use the GRASS Kinvaro Calculator at
www.grassusa.com/kinvaro_calculator.html

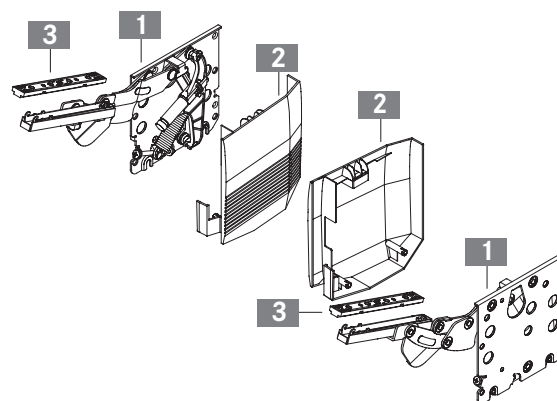


Aluminum frame adapter, Kinvaro T-71 set			
Description	Overlay	Item No.	PU
Aluminum frame adapter (2x) for narrow aluminum frames (19 mm) with fixing screws (16x)	13 - 17	F151145226101	1

Face frame adapter, Kinvaro T-71 set			
Description	Overlay	Item No.	PU
Face frame adapters (2x) for wood frames with fixing screws (8x)	13 - 17	F151135905201	1

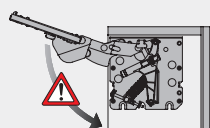
Kinvaro T-71 set comprises:

- 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)



PU = Packing Unit

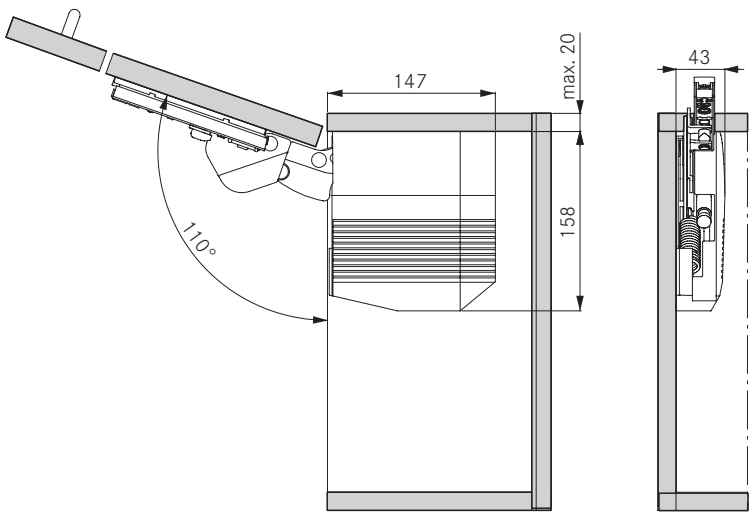
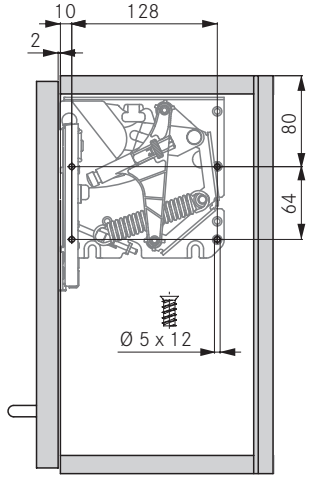
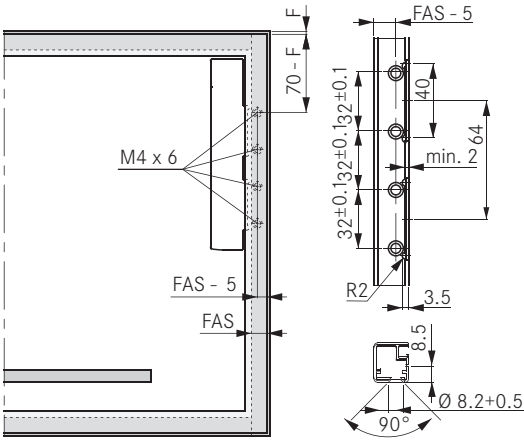
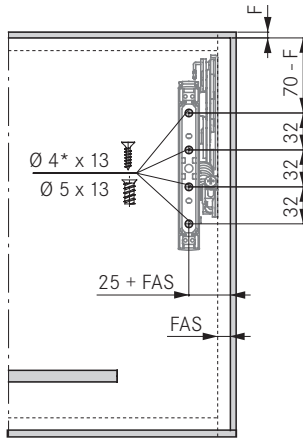
WARNING



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

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimeters

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

Metric Conversions

MM	2	3.5	5	7.5	8	8.5	10	12	12.5	13	17	19	20	25	29	32	40
INCH	³ / ₃₂	¹ / ₈	³ / ₁₆	⁹ / ₃₂	⁵ / ₁₆	¹¹ / ₃₂	¹³ / ₃₂	¹⁵ / ₃₂	¹ / ₂	¹ / ₂	²¹ / ₃₂	³ / ₄	¹³ / ₁₆	³¹ / ₃₂	¹ ⁵ / ₃₂	¹ ¹ / ₄	¹ ⁹ / ₁₆

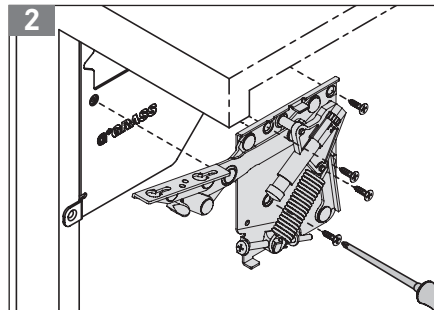
MM	42	43	47.5	50	55	64	70	80	100	128	133	135	144	147	156	158	185
INCH	¹ ²¹ / ₃₂	¹ ¹¹ / ₁₆	¹ ⁷ / ₈	¹ ³¹ / ₃₂	² ⁵ / ₃₂	² ¹ / ₂	² ³ / ₄	³ ¹ / ₈	³ ¹⁵ / ₁₆	⁵ ¹ / ₁₆	⁵ ¹ / ₄	⁵ ⁵ / ₁₆	⁵ ¹¹ / ₁₆	⁵ ¹³ / ₁₆	⁶ ⁵ / ₃₂	⁶ ¹ / ₄	⁷ ¹ / ₄

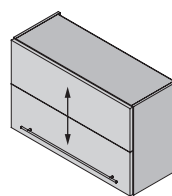
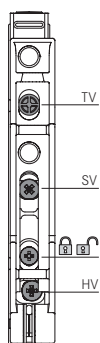
LEGEND

F Reveal
FAS Front overlay, side
FAO Front overlay, top

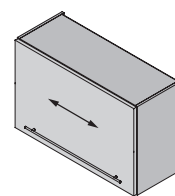
ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR FACE FRAME CABINETS

All dimensions in millimeters

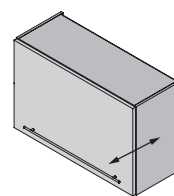
[illegible]



(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	
Adjusting the spring force	Adjusting the damping system	Note
		WARNING

KINVARO

T-76 lift-up fitting



- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening due 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 aluminum frames with glass inserts
- Fast, tool-free clip fitting of the front
- Face Frame adapter available
- Weight 11.5 to 24.25 lbs. (5.2 to 11.0 kg)
- Range of flaps:
Width: up to 47 1/4" (up to 1200 mm)
Height: 15 3/4" - 23 5/8" (400 - 600 mm)
- Cover caps in grey

APPLICATION RANGE

Cabinet height		Flap weight incl. handle lbs. (kg)	
		Spring, standard	
15 3/4"	(400)	15.4 - 24.3 (7.0 - 11.0)	
17 23/32"	(450)	14.8 - 21.2 (6.7 - 9.6)	
19 11/16"	(500)	12.8 - 18.7 (5.8 - 8.5)	
21 21/32"	(550)	12.3 - 16.8 (5.6 - 7.6)	
23 5/8"	(600)	11.5 - 15.4 (5.2 - 7.0)	

ORDER INFORMATION

Kinvaro T-76 set

Description	Springs	Version for	Overlay	Item No.	
				Cover cap grey	PU
Kinvaro T-76 on right without damper and on left with damper, pre-assembled springs standard, incl. cover caps	standard	wood	variable	F151147706201	1

For automatic Kinvaro door calculations:
Use the GRASS Kinvaro Calculator at
www.grassusa.com/kinvaro_calculator.html



Aluminum frame adapter, Kinvaro T-76 set

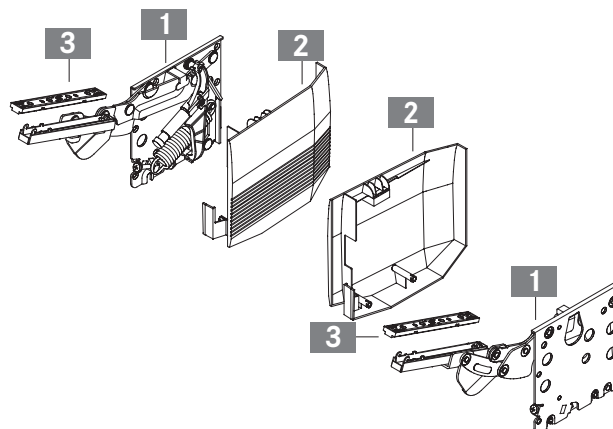
Description	Overlay	Item No.	PU
Aluminum frame adapter (2x) for narrow aluminum frames (19 mm) with fixing screws (16x)	13 - 17	F151145226101	1

Face frame adapter, Kinvaro T-76 set

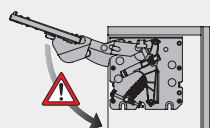
Description	Overlay	Item No.	PU
Face frame adapter (2x) for wood frames with fixing screws (8x)	13 - 17	F151135905201	1

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)



WARNING

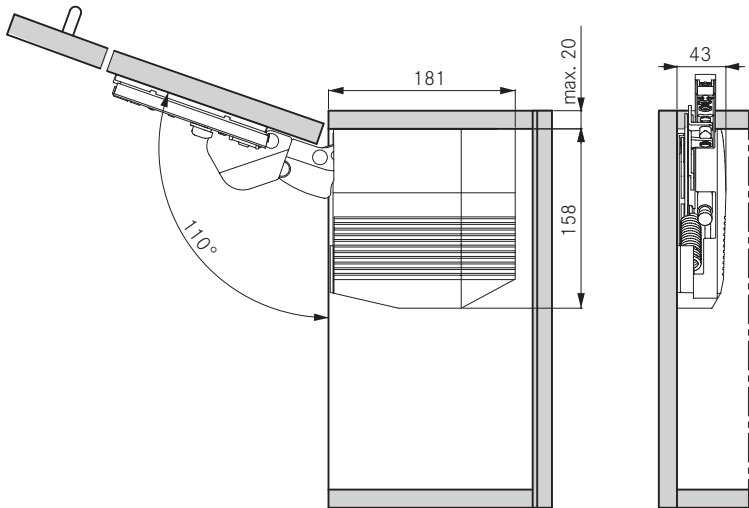
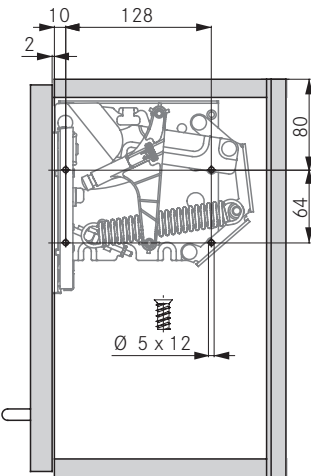
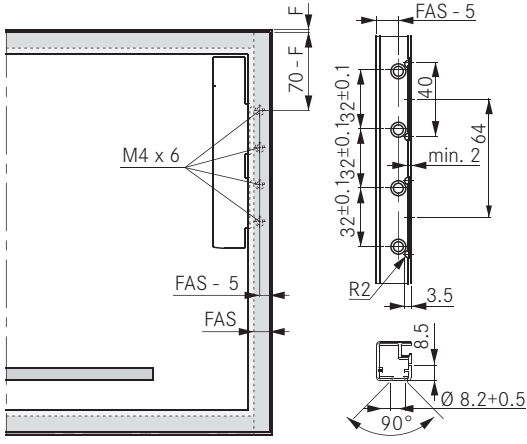
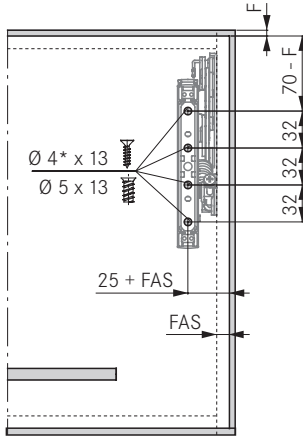


Important!
Caution - risk of injury! Fitting is spring-tensioned!

PU = Packing Unit

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimeters

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

*Pre-drilling required - Ø 2 mm

Metric Conversions

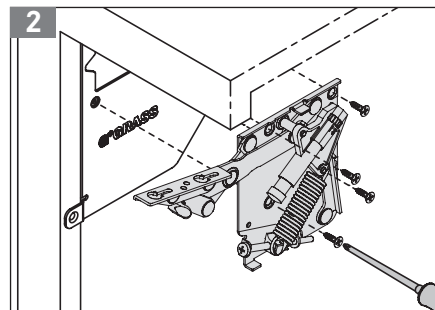
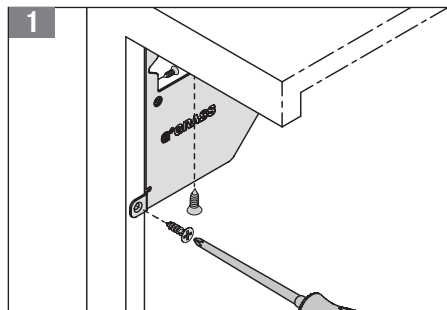
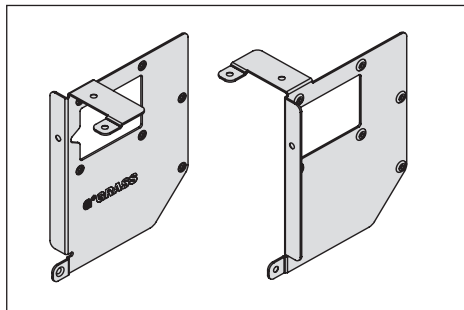
MM	2	3.5	5	7.5	8	8.5	10	12.5	13	17	19	20	25	29	32	40	42
INCH	³ / ₃₂	¹ / ₈	³ / ₁₆	⁹ / ₃₂	⁵ / ₁₆	¹¹ / ₃₂	¹³ / ₃₂	¹ / ₂	¹ / ₂	²¹ / ₃₂	³ / ₄	¹³ / ₁₆	³¹ / ₃₂	¹ / ₅	¹ / ₄	¹ / ₁₆	¹ / ₂
MM	43	47.5	50	55	64	70	80	128	133	135	138	144	156	158	181	185	
INCH	¹ / ₁₆	¹ / ₈	¹ / ₄	² / ₅	² / ₃	² / ₃	³ / ₈	⁵ / ₁₆	⁵ / ₁₆	⁵ / ₁₆	⁵ / ₁₆	⁵ / ₁₆	⁶ / ₃₂	⁶ / ₃₂	⁷ / ₈	⁷ / ₈	

LEGEND

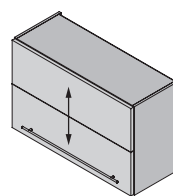
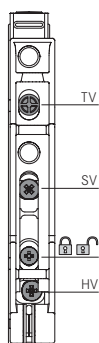
F Reveal
FAS Front overlay, side
FAO Front overlay, top

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR FACE FRAME CABINET

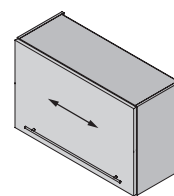
All dimensions in millimeters



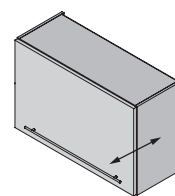
Required space	Side wall drilling positions
Front: installation for flaps with narrow aluminum frame profiles (19 mm)	Front: installation for wooden and frame flaps (min. 55 mm width)
* Narrow aluminum frame a profile (19mm)	* Predrilling required - Ø 2 mm
Calculation of flap weight Flap width x flap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



(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	
Adjusting the spring force	Adjusting the damping system	Note
		WARNING

KINVARO

T-57 lift-up 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 aluminum frames with glass inserts
- Weight 2.2 to 13.7 lbs. (1.0 to 6.2 kg)
- Range of flaps:
Width: up to 47 1/4" (up to 1200 mm)
Height: 11 13/16" - 23 5/8" (300 - 600 mm)
- High-quality finish, nickel-plated

APPLICATION RANGE

Cabinet height	Flap weight incl. handle lbs. (kg)	
	min.	max.
11 13/16" (300)	2.2 (1.0)	13.7 (6.2)
13 25/32" (350)	2.6 (1.2)	10.8 (4.9)
15 3/4" (400)	3.1 (1.4)	8.4 (3.8)
17 23/32" (450)	3.3 (1.5)	7.9 (3.6)
19 11/16" (500)	3.7 (1.7)	6.4 (2.9)
21 21/32" (550)	4.2 (1.9)	6.0 (2.7)
23 5/8" (600)	4.6 (2.1)	5.5 (2.5)

ORDER INFORMATION

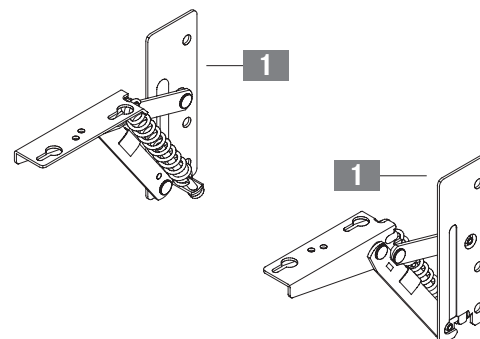
Kinvaro T-57 set				
Description	Version for	Overlay	Item No.	PU
Kinvaro T-57, nickel-plated adjustable springs on right and left	wood	variable	F151145224517	1

For automatic Kinvaro door calculations:
Use the GRASS Kinvaro Calculator at
www.grassusa.com/kinvaro_calculator.html

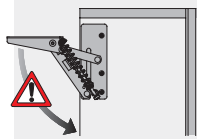


Kinvaro T-57 set comprises:

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



WARNING

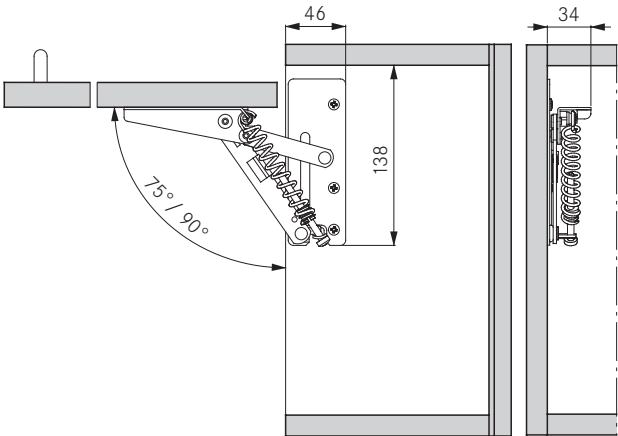
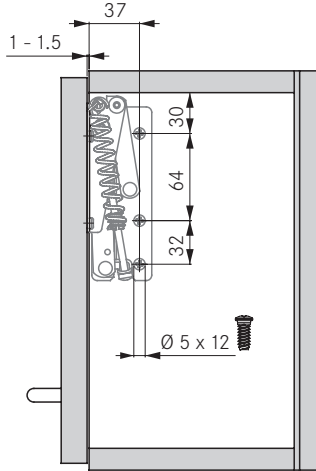
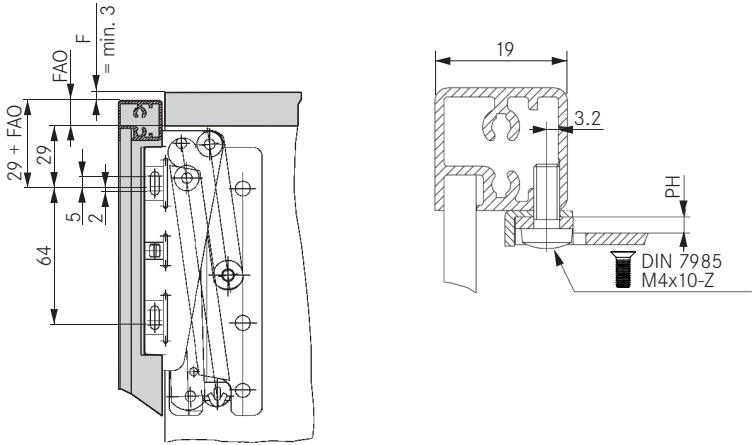
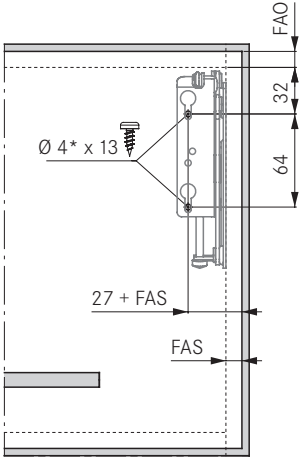


Important!
Caution - risk of injury! Fitting is spring-tensioned!

PU = Packing Unit

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimeters

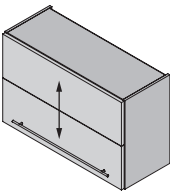
Required space	Side wall drilling positions
	
Front: installation for flaps with narrow aluminum frame profiles (19 mm)	Front: installation for wooden and frame flaps (min. 55 mm width)
	
*Pre-drilling required - Ø 2 mm	
Calculation of flap weight	
Flap width x flap height x flap thickness x density¹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

Metric Conversions

MM	.5	1	1.5	2	3	3.2	3.5	5	7.5	8	8.5	13	19	25	27	29	30
INCH	1/32	1/16	1/16	3/32	1/8	1/8	1/8	3/16	9/32	5/16	11/32	1/2	3/4	31/32	1 1/16	1 5/32	1 3/16
MM	32	34	37	46	47.5	50	55	64	100	135	138	144	164	169	170	180	181
INCH	1 1/4	1 11/32	1 7/16	1 13/16	1 7/8	1 31/32	2 5/32	2 1/2	3 15/16	5 5/16	5 7/16	5 11/16	6 15/32	6 21/32	6 11/16	7 3/32	7 1/8

LEGEND

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

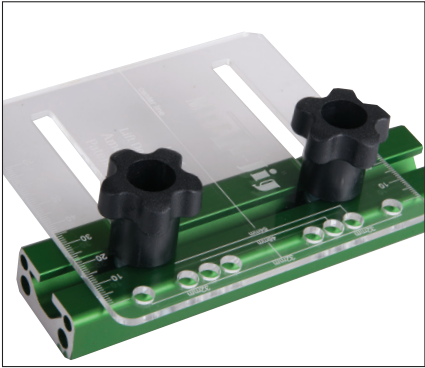


(HV) Height adjustment
+/-1 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

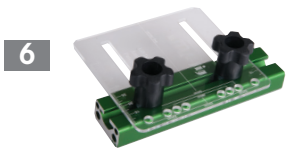
Height adjustment (HV)	Locking	
Adjusting to 75° opening angle	Adjusting to 90° opening angle	Adjusting the spring force
		Note
		WARNING



Drilling templates for the Kinvaro Lifter System. Each lifter has an individual template for easy installation. Order each drill jig with appropriate bit.

ORDER INFORMATION

KINVARO Installation Templates			
Description	Item No.	PU	
1 Kinvaro L-80 Drill Jig	00490-01	1	
2 Kinvaro F-20 Drill Jig	00491-01	1	
3 Kinvaro T-65 Drill Jig	00492-01	1	
4 Kinvaro T-71/T-76 Drill Jig	00493-01	1	
5 Kinvaro T-57 Drill Jig	00494-01	1	
6 Kinvaro Door Template Drill Jig	00495-01	1	
7 Kinvaro 5mm drill bit	00496-01	1	
8 Kinvaro 9/64" drill bit	00497-01	1	



Example: Kinvaro F-20 Lifter Order

- (1x) F-20 Drill Jig 2
(1x) Door Template Drill Jig 6
(1x) 5mm or 9/64"drill bit 7 or 8

PU = Packing Unit

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 aluminum frames with glass inserts
- Allows additional cabinet installation above
- Maintenance-free, no re-adjustment required
- High-quality zinc diecasting, nickel-plated
- Range of flaps:
Width: up to 47 1/4" (up to 1200 mm)
Height: 9 27/32" - 19 11/16" (250 - 500 mm)

APPLICATION RANGE

Cabinet height	Number of flap stays	Flap weight incl. handle lbs. (kg)	
		Spring, standard	
9 27/32" (250)	1	3.1 - 9.7	(1.4 - 4.4)
	2	7.5 - 19.6	(3.4 - 8.9)
11 13/16" (300)	1	3.5 - 9.5	(1.6 - 4.3)
	2	7.1 - 19.0	(3.2 - 8.6)
13 25/32" (350)	1	2.9 - 9.0	(1.3 - 4.1)
	2	5.7 - 17.9	(2.6 - 8.1)
15 3/4" (400)	1	2.9 - 7.5	(1.3 - 3.4)
	2	5.7 - 15.0	(2.6 - 6.8)
17 23/32" (450)	1	2.6 - 6.6	(1.2 - 3.0)
	2	5.3 - 13.4	(2.4 - 6.1)
19 11/16" (500)	1	2.4 - 6.4	(1.1 - 2.9)
	2	4.9 - 12.8	(2.2 - 5.8)

ORDER INFORMATION

Kinvaro T-105 set

Description	Springs	Version for	Overlay	Left	Right	PU
Kinvaro T-105 right, adjustable standard springs, incl. black cover cap	standard	wood	variable	F151145220513	F151145221513	1

For automatic Kinvaro door calculations:
Use the GRASS Kinvaro Calculator at
www.grassusa.com/kinvaro_calculator.html



Kinvaro Installation Template

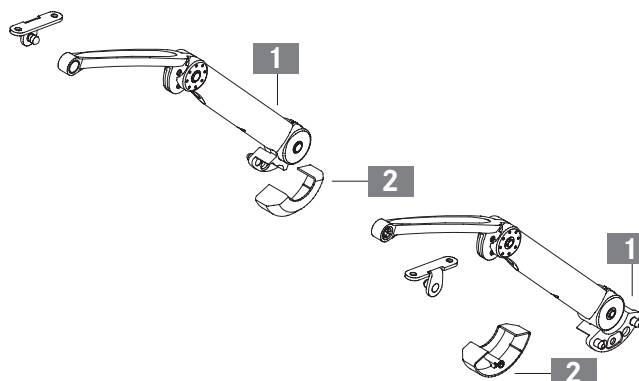
Description	Item No.	PU
Kinvaro T-105 Drill Jig	00489-01	1
Kinvaro Door Template Drill Jig	00495-01	1
Kinvaro 5mm drill bit	00496-01	1
Kinvaro 9/64" drill bit	00497-01	1

Note:

Please order separately: Tiomos or Nexis hinges 0 crank with spring, without Soft-close, and respective 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)



PU = Packing Unit

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimeters

Required space

Side wall drilling positions

* Pre-drilling required - Ø 2 mm

Front:
installation for flaps with narrow aluminum frame profiles (19 mm)

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

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

Minimum reveal and door protrusion depend on the fitted hinge. For suitable hinges please refer to the Tiomos or Nexis Grass hinge catalog.

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

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

* Pre-drilling required - Ø 2 mm

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

Calculation of flap weight

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

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

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

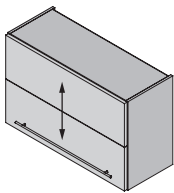
Metric Conversions

MM	2	3	3.2	3.5	4	8	8.5	11	13	17	19	20	21	22	27	32	45
INCH	³ / ₃₂	¹ / ₈	¹ / ₈	¹ / ₈	⁵ / ₃₂	⁵ / ₁₆	¹¹ / ₃₂	⁷ / ₁₆	¹ / ₂	²¹ / ₃₂	³ / ₄	¹³ / ₁₆	¹³ / ₁₆	⁷ / ₈	^{1 1} / ₁₆	^{1 1} / ₄	^{1 3} / ₄

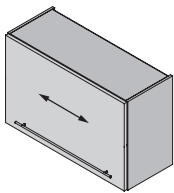
MM	90	100	113	118	119	164	169	170	174	180							
INCH	^{3 17} / ₃₂	^{3 15} / ₁₆	^{4 7} / ₁₆	^{4 21} / ₃₂	^{4 11} / ₁₆	^{6 15} / ₃₂	^{6 21} / ₃₂	^{6 11} / ₁₆	^{6 27} / ₃₂	^{7 3} / ₃₂							

LEGEND

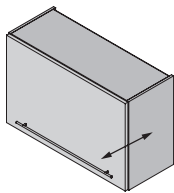
- A Side wall fastening dimension
- B Side wall fastening dimension
- C Front fastening dimension
- FAO Front overlay, top
- FAS Front overlay, side
- MH Mounting plate height



(HV) Height adjustment



(SV) Side adjustment



(TV) Depth adjustment

All adjustments are on the hinge and can be carried out independently of each other.

ADJUSTMENT OPTIONS FOR HINGE IN CABINET TOP PANEL

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

ADJUSTMENTS

Adjusting the spring force		

NOTES



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

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

Website: www.grassusa.com
E-mail: info@grassusa.com

GRASS Canada Inc.
10 Newgale Gate, Unit 7
Toronto, ON M1X 1C5

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

Internet: www.grasscanada.com
E-Mail: info@grasscanada.com



www.grassusa.com