



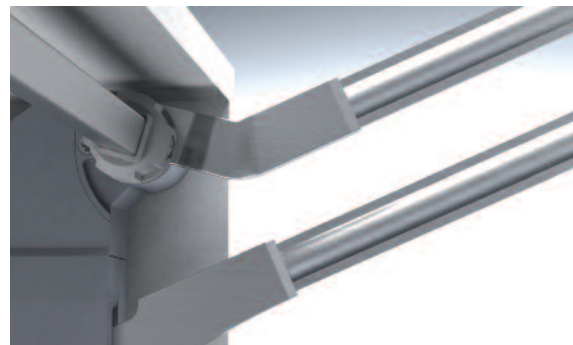
## KINVARO LIFTERS



**G\*GRASS®**

### KINVARO LIFTER SYSTEMS

Functional movement systems for kitchens, bathrooms,  
and offices.





It is our mission to create a movement system that helps our customers to achieve their success. Kinvaro lifters are an example of just that.





Exclusive lifter systems – the right solution for design, technology and operation.

**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.





Easy to open, easy access to the cabinet and gentle, silent closing. Kinvaro door systems are an expression of our modern lifestyle.



#### **L-80 Lift-up**

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



#### **F-20 Bi-fold lifter**

In one effortless motion, the premier 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.



#### **T-series lifters**

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. For standard doors use T-65 and for heavier doors use the T-70.

# Kinvaro Lifter Systems

## Integrated Soft-close

With the integrated Soft-close built into the Grass Lifters, the final closing action is soft, quiet and easy. The Lifters meet their resting place in one smooth action.

## Easy Installation

The Grass Lifters are easy to install and offer a variety of adjustments. All Lifter parts fit closely against the cabinet side panel offering a clean sleek look. Effortless, Integrated, Easy.

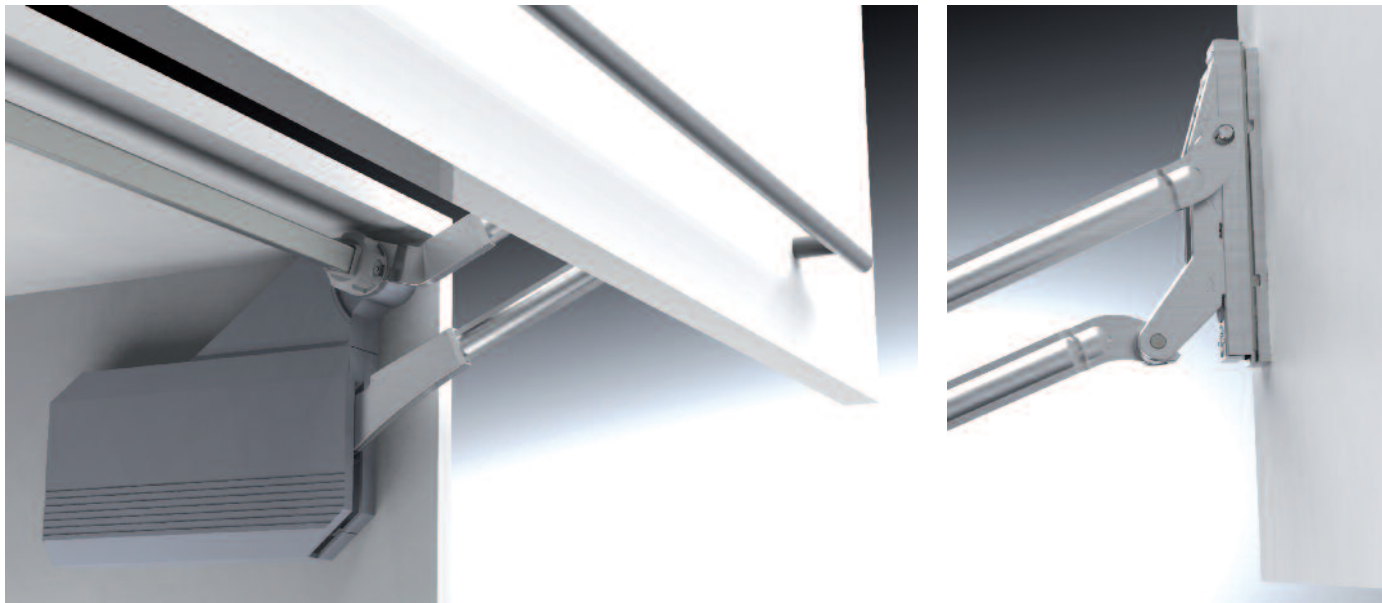


## Product overview

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## Kinvaro L-80

### Parallel lifter system



The parallel lifter system opens a single door with absolute precision and in parallel to the cabinet.

#### Features

- Extremely smooth movement
- Spring assisted opening function and integrated adjustable closing damper ensures smooth and uniform opening and closing for all door weights.
- Adjustable damper system
- Door holds firmly in any position
- High Stability
- Easy, tool-free adjustment
- Pre-mounted Euro screws for attaching the lifter to the cabinet wall

#### Order information:

1. Parallel lifter system includes:
  - 1 x Guide Lever Left
  - 1 x Guide Lever Right
  - 1 x Spring Tension Unit Left
  - 1 x Spring Tension Unit Right
  - 1 x Cross Brace 1200mm (47 1/4")
  - 1 x Door Plate Left Wood Front/Aluminum Frame Minimum. Width 45mm
  - 1 x Door Plate Right Wood Front/Aluminum Frame Minimum. Width 45mm
  - 1 x Cover Cap Left Grey RAL 7040
  - 1 x Cover Cap Right Grey RAL 7040
  - 1 x Mounting Instruction
2. The combination of cabinet height, width and door weight determines the guide lever and the spring tension.
3. Sets include brackets for wood doors. Order brackets for narrow aluminum frame separately.

## 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<sup>(2)</sup> + handle weight<sup>(3)</sup> = flap weight

Example: 23 5/8" x 15 3/4" x 3/4" x .0307 lb/in<sup>3</sup> + 1.1 lb = 9.67 lbs

### Calculation of door width (all measurements in inches)

$$\frac{\text{Flap weight} - \text{handle weight}^{(3)}}{\text{Flap height} \times \text{flap thickness} \times \text{density}^{(2)}} = \text{Flap Width} \quad \text{Example} \quad \frac{9.9 \text{ lb} - 1.1 \text{ lb}}{15 \frac{3}{4}" \times \frac{3}{4}" \times .0307} = 24 \frac{9}{32}"$$

<sup>(2)</sup> Density: pine = 0.0163 lb/in<sup>3</sup>, chipboard = .0235 lb/in<sup>3</sup>, MDF = .0307/in<sup>3</sup>

<sup>(3)</sup> 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.

## Step 1 - Choose the lever type and spring type

- Determine the correct Guide Lever type by selecting the correct cabinet height and moving right to column 2 (Guide Lever).
- Determine the correct spring tension by selecting the row with the correct cabinet height; then, moving to the right, select the correct door weight. Determine the correct Spring Type by moving up to the 1st row and choosing the spring tension.

Cabinet Height H	Guide Lever Type	Spring Tension Z/A	Spring Tension A	Spring Tension B	Spring Tension C	Cabinet Width
350 - 369 [13 3/8"-14 1/2"]	1	1.6 - 3.0 KG [3.5 - 6.6 Lbs.]	2.5 - 6.5 KG [5.5 - 14.3 Lbs.]	6.0 - 9.5 KG [13.2 - 20.9 Lbs.]	–	450 -1200 [17 3/4" -47 1/4"]
370 - 389 [14 1/2"-15 1/8"]	2	1.7 - 2.8 KG [3.7 - 6.2 Lbs.]	2.3 - 6.0 KG [5.1 - 13.2 Lbs.]	5.5 - 9.0 KG [12.1 - 19.8 Lbs.]	8.5 - 9.6 KG [18.7 - 21.1 Lbs.]	450 -1200 [17 3/4" -47 1/4"]
390 - 409 [15 1/8"-16 1/8"]	3	1.8 - 2.5 KG [4.0 - 5.5 Lbs.]	2.1 - 5.5 KG [4.6 - 12.1 Lbs.]	5.0 - 8.5 KG [11.0 - 18.7 Lbs.]	8.0 - 10.1 KG [17.6 - 22.2 Lbs.]	450 -1200 [17 3/4" -47 1/4"]
410 - 429 [15 3/8"-16 3/8"]	4	–	1.9 - 5.0 KG [4.2 - 11.0 Lbs.]	4.5 - 8.0 KG [9.9 - 17.6 Lbs.]	7.5 - 14.6 KG [16.5 - 32.1 Lbs.]	450 -1200 [17 3/4" -47 1/4"]
430 - 600 [16 3/8"-23 3/8"]	5	–	2.0 - 4.5 KG [4.4 - 9.9 Lbs.]	4.0 - 7.5 KG [8.8 -16.5 Lbs.]	7.0 - 14.6 KG [15.4 - 32.1 Lbs.]	450 -1200 [17 3/4" -47 1/4"]

## Step 2 - Choose the correct lifter set

- Using the Guide Lever and Spring Type information from Step 1, choose the correct Lifter Set from the chart below.

### For narrow frame aluminum doors

Adapter Bracket for narrow aluminum doors		
Description	Item No.	PU
19 mm adapter bracket, set with screws	D2359040000	10 sets
	D2359045000	1 set

### For narrow frame aluminum doors:

- 19mm [3/4"] or 23mm [29/32"] wide
- Order the following Adapter Bracket in addition to Lifter Set

Guide Lever Type	Guide Lever Type	Spring Tension Z/A	PU
1	Z/A	D2806001125	1
1	A	D2806006125	
1	B	D2806011125	
2	Z/A	D2806002125	
2	A	D2806007125	
2	B	D2806012125	
2	C	D2806017125	
3	Z/A	D2806003125	
3	A	D2806008125	
3	B	D2806013125	
3	C	D2806018125	
4	A	D2806009125	
4	B	D2806014125	
4	C	D2806019125	
5	A	D2806010125	
5	B	D2806015125	
5	C	D2806020125	

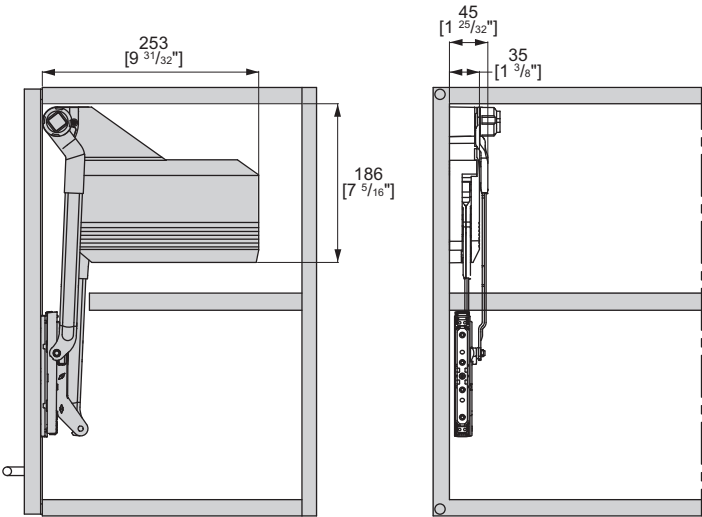
PU = packaging unit

# Kinvaro L-80

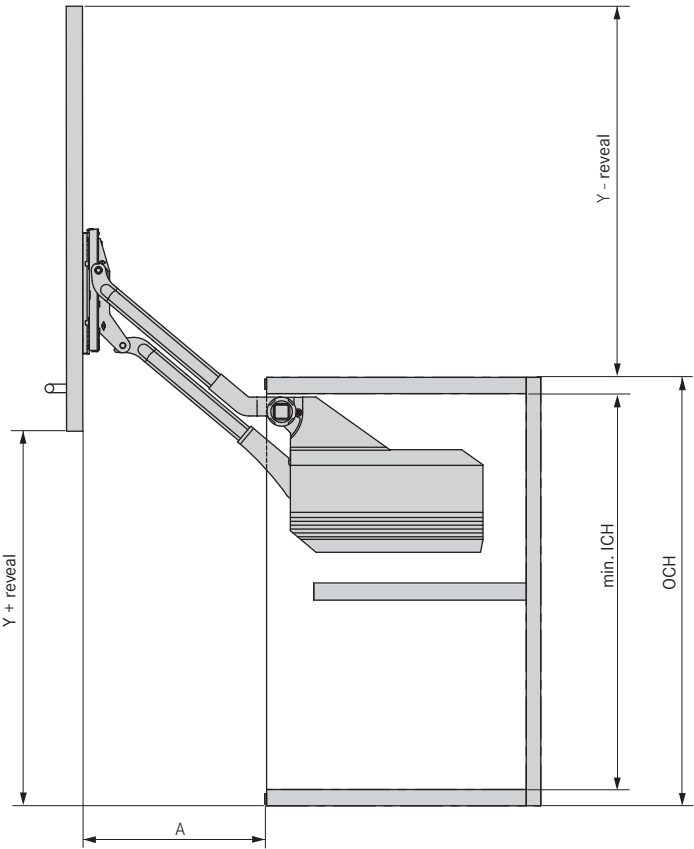
## Parallel lifter system

Mounting and installation information for frameless and face frame applications

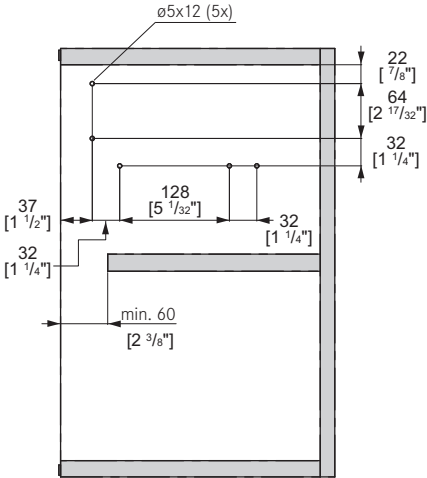
Left-hand cabinet side. (Right-hand cabinet side mirror-inverted)



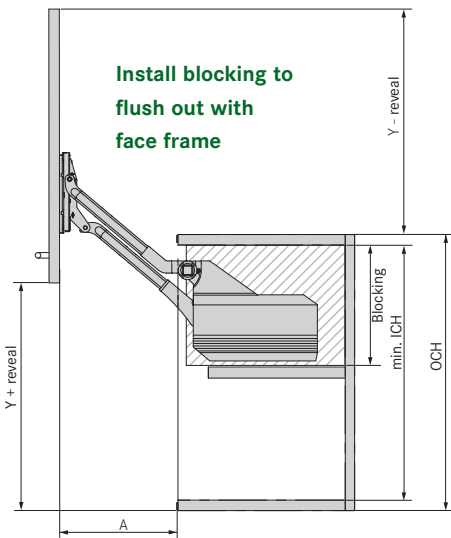
Frameless



OCH = Outside Cabinet Height  
ICH = Inside Cabinet Height



Face Frame



L-80 Type	OCH	min. ICH	A	Y
1	350 - 369 (13 <sup>25</sup> / <sub>32</sub> - 14 <sup>17</sup> / <sub>32</sub> ")	312 (12 <sup>5</sup> / <sub>32</sub> ")	161 (6 <sup>11</sup> / <sub>32</sub> ")	304 (11 <sup>31</sup> / <sub>32</sub> ")
2	370 - 389 (14 <sup>5</sup> / <sub>16</sub> - 15 <sup>5</sup> / <sub>16</sub> ")	332 (13 <sup>1</sup> / <sub>16</sub> ")	176 (6 <sup>15</sup> / <sub>16</sub> ")	337 (13 <sup>5</sup> / <sub>32</sub> ")
3	390 - 409 (15 <sup>11</sup> / <sub>32</sub> - 16 <sup>3</sup> / <sub>32</sub> ")	352 (13 <sup>27</sup> / <sub>32</sub> ")	191 (7 <sup>17</sup> / <sub>32</sub> ")	370 (14 <sup>5</sup> / <sub>16</sub> ")
4	410 - 429 (16 <sup>5</sup> / <sub>32</sub> - 16 <sup>7</sup> / <sub>16</sub> ")	372 (14 <sup>21</sup> / <sub>32</sub> ")	206 (8 <sup>1</sup> / <sub>8</sub> ")	403 (15 <sup>7</sup> / <sub>16</sub> ")
5	430 - 600 (16 <sup>15</sup> / <sub>16</sub> - 23 <sup>5</sup> / <sub>8</sub> ")	392 (15 <sup>7</sup> / <sub>16</sub> ")	221 (8 <sup>11</sup> / <sub>16</sub> ")	436 (17 <sup>5</sup> / <sub>32</sub> ")



# Kinvaro F-20

## Bi-Fold Lifter System



The Bi-Fold Lifter moves two horizontal doors together to gain maximum access into the interior of a wall cabinet.

The folding action places the lower door within reach.

### Features

- The integral damping device slows down the door enabling a Soft-close® action
- The adjustable mechanism permits balancing the doors to stay in any position
- Lifter mounts towards the top of cabinet to enable multiple shelves
- Break-away hinges in the center of the doors prevent pinching fingers
- Easy tool-free attachment of the door assembly to the cabinet
- Angle limit adjustment restricts how high the door opens
- Pre-mounted Euro screws and fixing tabs enable quick attachment to cabinet sides

### Order information:

1. Bi-fold Lifter set includes: Right & Left Hand Lifter units with gray cover caps, (2) Guide Lever fixing brackets for wood doors with cover caps, (2) Break-away center hinges
2. The combination of height of cabinet, width and weight of door and door type determines: Guide lever length, balancing spring force, type of adapter brackets for lower door, amount of concealed hinges for upper door
3. Concealed Euro hinges and base plates for top door are ordered separately. Top overlay will determine hardware combination and drilling distance for hinge cup. Use Nexis hinge series.
4. Sets include brackets for wood doors. Order brackets for narrow-frame aluminum doors separately.

Hinges for use in combination with the Kinvaro F-20 can be found in the Grass Nexis Brochure



Example:  
Nexis 110



Example:  
Nexis 17

### Application range

**Flap weight from 6.8 to 15.6 kg (15.0 lbs to 36.1 lbs)**

**Flap size: width 400 - 1200 mm (17 3/4" - 47 1/4") height 2 x 260 mm (10 1/4" - 2 x 400 mm (15 3/4"))**

#### Calculation of door weight (all measurements in inches)

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

Example: 23 5/8" x 15 3/4" x 3/4" x .0307 lb/in<sup>3</sup> + 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:  $\frac{9.9 \text{ lb} - 1.1 \text{ lb}}{15 \frac{3}{4}" \times 3 \frac{3}{4}" \times .0307} = 24 \frac{9}{32}"$

<sup>(2)</sup> Density: pine = 0.0163 lb/in<sup>3</sup>, chipboard = .0235 lb/in<sup>3</sup>, MDF = .0307/in<sup>3</sup>

<sup>(3)</sup> Bar handles must be calculated with .22lb 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.

### Step 1 - Choose the lever type and spring type

- Select the row with the correct cabinet height that determines the Guide Lever Type in the second column

Cabinet Height H	Guide Lever Type	Weight of both doors, including handle, in lbs.[kg]
		Spring C
600 - 649 [23 5/8"-25 9/16"]	4	15.0 - 34.8 [6.8-15.8]
650 - 699 [25 9/16"-27 1/2"]	5	14.7 - 37.2 [6.7-16.9]
700 - 749 [27 9/16"-29 1/2"]	6	14.3 - 36.1 [6.5-16.4]

### Step 2 - Choose the correct lifter set

- Compare the Guide Lever type to the correct item #

Guide Lever Type	Spring Type	Bi-Fold Lifter Set Item Number	PU
4	C	<b>D287.601.81.25</b>	1
5	C	<b>D287.602.31.25</b>	1
6	C	<b>D287.602.81.25</b>	1

### Steps 3 & 4 - Determine dimensions B and C

#### Step 3

Determine Lifter Set mounting position "B":

- Select the Cabinet Height H in the first column
- Cross reference to Dimension B in the third column

#### Step 4

Find Guide Lever Bracket position "C" on lower door:

- Select the Cabinet Height H in the first column
- Cross reference to Dimension C in the fourth column

Cabinet Height H	Guide Lever Type	Dimension B	Dimension C
600 - 609 [23 5/8" - 24"]	4	208 [8 3/16"]	138 [5 7/16"]
610 - 619 [24" - 24 3/8"]		198 [7 13/16"]	148 [5 13/16"]
620 - 629 [24 7/16" - 24 3/4"]		178 [7"]	168 [6 5/8"]
630 - 639 [24 13/16" - 25 3/16"]		168 [6 5/8"]	178 [7"]
640 - 649 [25 3/16" - 25 9/16"]	5	158 [6 1/4"]	188 [7 3/8"]
650 - 699 [25 9/16" - 27 1/2"]		225 [8 7/8"]	146 [5 3/4"]
700 - 749 [27 9/16" - 29 1/2"]	6	235 [9 1/4"]	156 [6 1/8"]

### For narrow frame aluminum doors

#### For narrow frame aluminum doors:

- 19mm [3/4"] or 23mm [29/32"] wide
- Order the following Adapter Bracket in addition to Lifter Set

Adapter Bracket for narrow aluminum doors		
Description	Item No.	PU
19 mm adapter bracket, set with screws	<b>D287.901.30.00</b>	1

PU = packaging unit

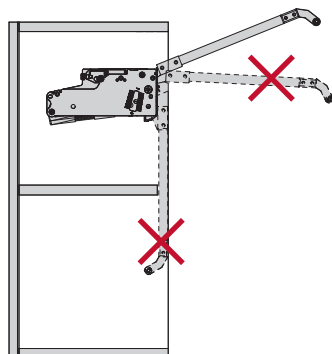
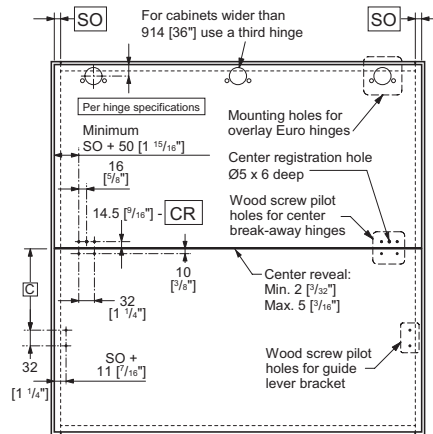
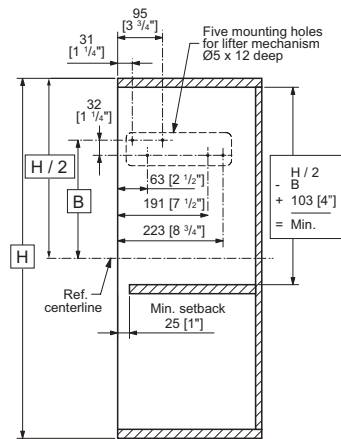
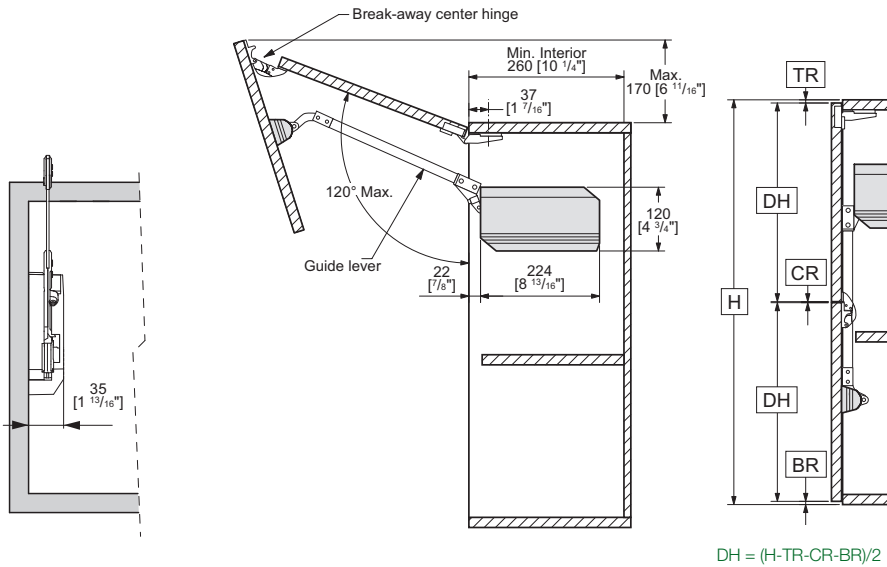
# Kinvaro F-20

## Bi-Fold Lifter System

### Mounting and installation information for frameless applications

#### Legend

B	Dimension B
BR	Bottom Reveal
C	Dimension C
CR	Center Reveal
DH	Door Height
H	Cabinet Height
SO	Side Overlay
TR	Top Reveal

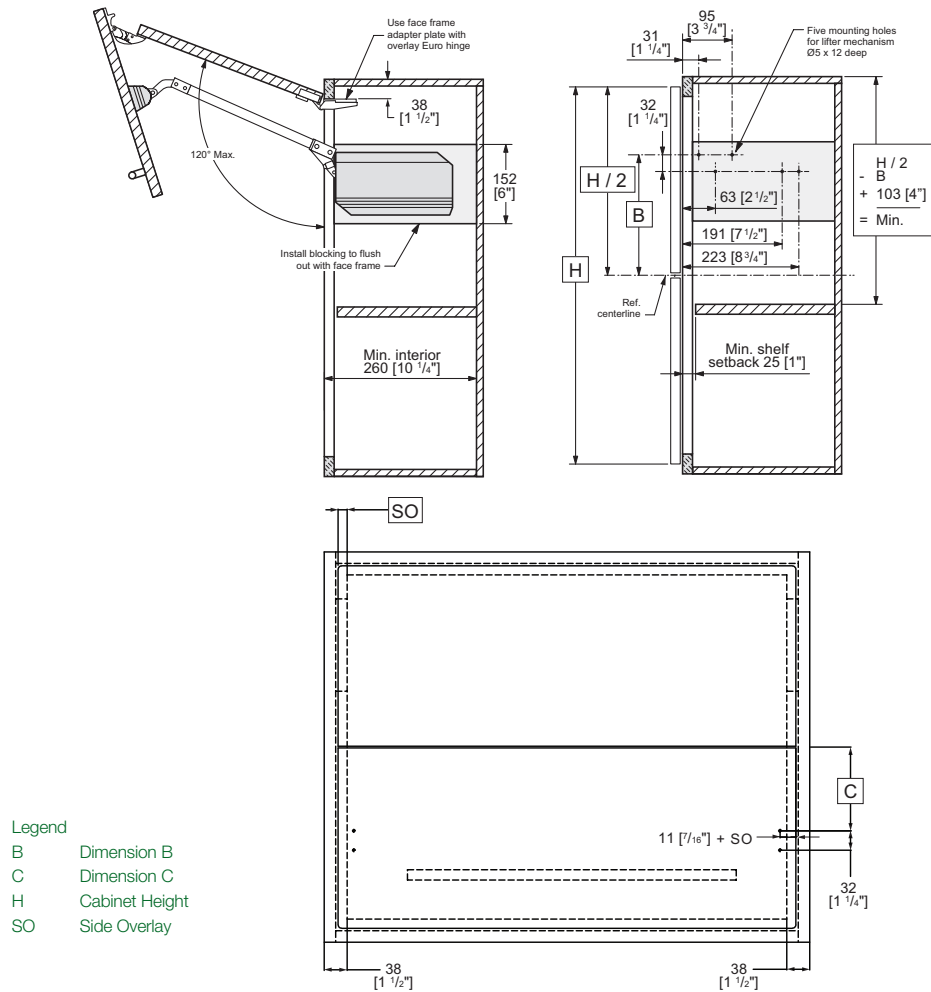


#### Important!

Caution! Risk of injury!

Fitting is spring-loaded.

## Mounting and installation information for face frame applications



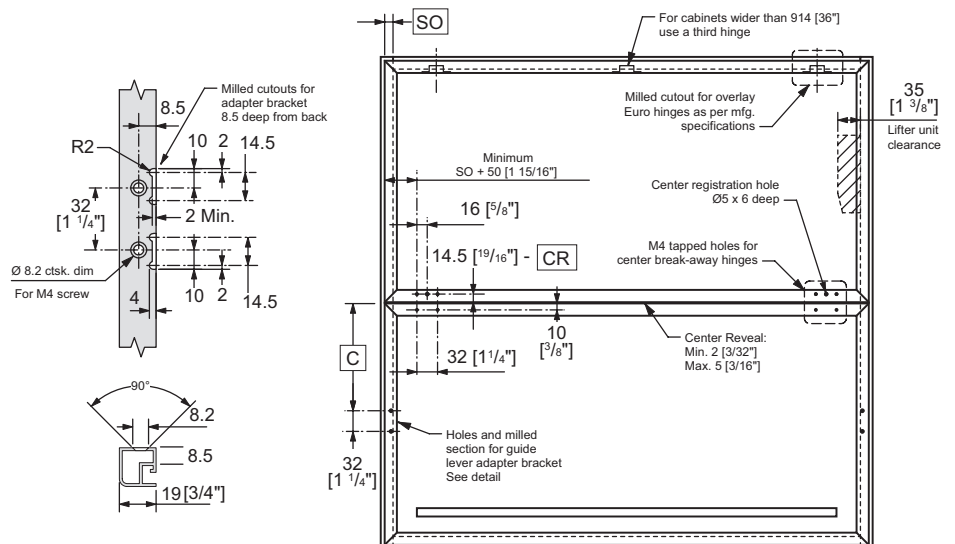
## Mounting and installation information for narrow aluminum door applications

Frame Width	Overlay	Side Thickness
19mm [3/4"] or 23mm [29/32"]	14 [9/16"] or 17 [1 1/16"]	16 [5/8"] or 19 [3/4"]

For aluminum frames wider than 45 [1 3/4"] use installation dimensions for face frame applications above.

Legend

- B Dimension B
- C Dimension C
- CR Center Reveal
- SO Side Overlay



# Kinvaro T-65

## Lifter system



The T-65 series opens a single door that pivots from the top of a wall cabinet. No concealed hinges are required in the top panel.

### Features

- The integral damping device slows down the door enabling a Soft-close® action
- The Lifter permits a zero top reveal through its multi-pivot points allowing cabinets to be stacked
- Maximum door opening angle of 100°
- A wide range of cabinet doors can be accommodated
- Door opens with a light touch and remains in place from 45° to its top position
- Lifter mounts towards the top which enables multiple shelves
- Door height adjustment via cam of +/- 2mm [1/8"] through keyhole mounting screws

### Order information:

1. Hardware components are supplied as a set to mount on wooden or aluminum framed doors with a minimum 45mm [1 25/32"] stile width
2. The following combination of factors determine what spring configuration to use: Cabinet height and width, door weight
3. T-65 Lifter Sets include: Right & Left Hand Lifter units with integral door mounting brackets and gray cover caps, one set of balance springs are pre-installed, one extra pair of coded springs are included for alternate weight ranges

## Step 1 - Choose the lifter set

- Lifter sets for wood doors also cover aluminum frame doors with a minimum stile width of 45mm [1 25/32"]

Order				
Door Type	Frame Width	Door Overlay	Item Number	PU
Wood	N/A	14 [9/16"]	<b>D267.200.23.25</b>	1
Aluminum Frame Overlay 14	19 [3/4"]	14 [9/16"]	<b>D267.252.23.25</b>	1
Aluminum Frame Overlay 17	19 [3/4"]	17 [11/16"]	<b>D267.251.83.25</b>	1

## Step 2 - Choose the correct spring configuration

- From the tables below, choose the door height in the first column
- Cross reference to the door weight including handle in the second column
- Check door width from the third or fourth column depending on which type of handle will be used
- The combination of this data determines the application and springs
- Lifter units come with black springs pre-installed. Yellow springs must be installed for light and medium applications

Light Applications - Yellow spring mounted on one side				Medium Applications - Yellow springs mounted on both sides				Heavy Applications - Black springs mounted on both sides			
Door Height	Door Wt. lbs. [kg]	Door width small handle	Door width bar handle	Door Height	Door Wt. lbs. [kg]	Door width small handle	Door width bar handle	Door Height	Door Wt. lbs. [kg]	Door width small handle	Door width bar handle
250 [9 1/8"]	1.9 - 4.6 [0.9-2.1]	300 - 500 [11 1/8" - 19 1/8"]	300 - 350 [11 1/8" - 13 3/4"]	250 [9 1/8"]	4.0 - 9.2 [1.8-4.2]	450 - 1000 [17 1/8" - 39 3/8"]	350 - 750 [13 3/4" - 29 1/2"]	250 [9 1/8"]	5.3 - 16.3 [2.4-7.4]	600 - 1200 [23 3/8" - 47 1/4"]	450 - 1200 [17 1/8" - 47 1/4"]
300 [11 1/8"]	1.5 - 3.7 [0.7-1.7]	300 - 350 [11 1/8" - 13 3/4"]	N/A	300 [11 1/8"]	3.1 - 7.5 [1.4-3.4]	300 - 700 [11 1/8" - 27 3/8"]	300 - 500 [11 1/8" - 19 1/8"]	300 [11 1/8"]	4.4 - 13.9 [2-6.3]	450 - 1200 [17 1/8" - 47 1/4"]	300 - 1000 [11 1/8" - 39 3/8"]
				350 [13 3/4"]	2.2 - 6.4 [1-2.9]	300 - 500 [11 1/8" - 19 1/8"]	300 - 400 [11 1/8" - 15 3/4"]	350 [13 3/4"]	3.7 - 11.9 [1.7-5.4]	300 - 950 [11 1/8" - 37 3/8"]	300 - 750 [11 1/8" - 29 1/2"]
				400 [15 3/4"]	1.8 - 5.5 [0.8-2.5]	300 - 350 [11 1/8" - 13 3/4"]	300 - 300 [11 1/8" - 11 1/8"]	400 [15 3/4"]	3.3 - 10.3 [1.5-4.7]	300 - 700 [11 1/8" - 27 3/8"]	300 - 600 [11 1/8" - 24 1/8"]
				450 [17 1/8"]	1.5 - 4.8 [0.7-2.2]	300 - 300 [11 1/8" - 11 1/8"]	N/A	450 [17 1/8"]	2.9 - 9.2 [1.3-4.2]	300 - 550 [11 1/8" - 21 3/8"]	300 - 450 [11 1/8" - 17 1/8"]
				500 [19 1/8"]	1.3 - 4.4 [0.6-2]	N/A	N/A	500 [19 1/8"]	2.9 - 8.6 [1.3-3.9]	300 - 450 [11 1/8" - 17 1/8"]	300 - 400 [11 1/8" - 15 3/4"]
								550 [21 3/4"]	2.9 - 7.5 [1.3-3.4]	N/A	N/A
								600 [23 3/4"]	2.9 - 6.8 [1.3-3.1]	N/A	N/A

**Note: As there are adjustments for the spring balance and dampening force, rounding up or down to match your door height is possible.**

**For heavier doors than are shown in the tables, use the T-70 series.**

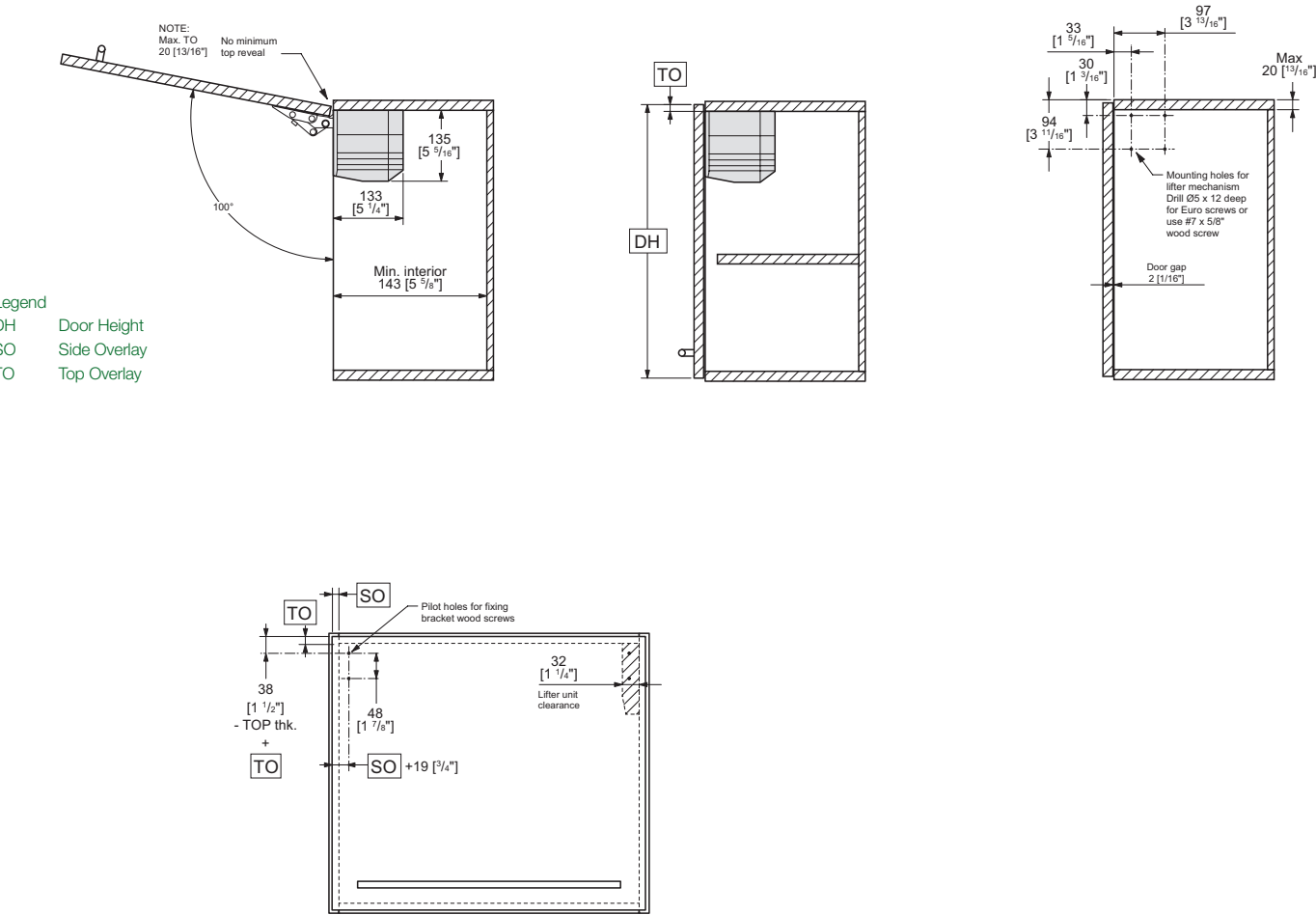
- Weights based on 19mm [3/4"] thick MDF door with bar handle
- Bar handle weight is calculated at .22 lbs per 100mm [4"]
- A trial application is recommended in all situations

PU = packaging unit

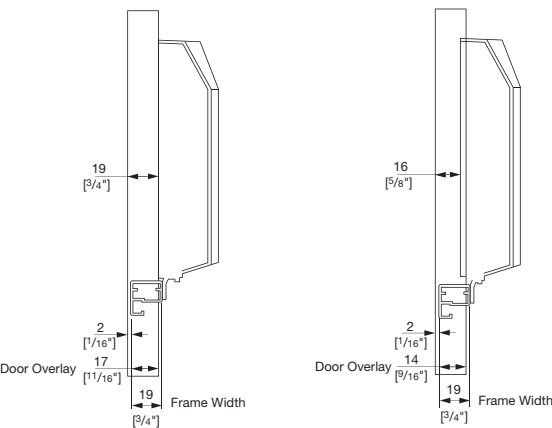
# Kinvaro T-65

## Lifter System

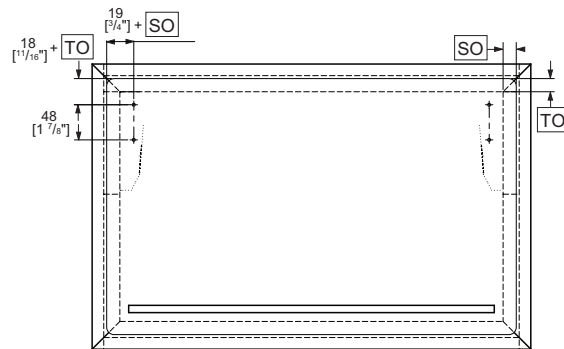
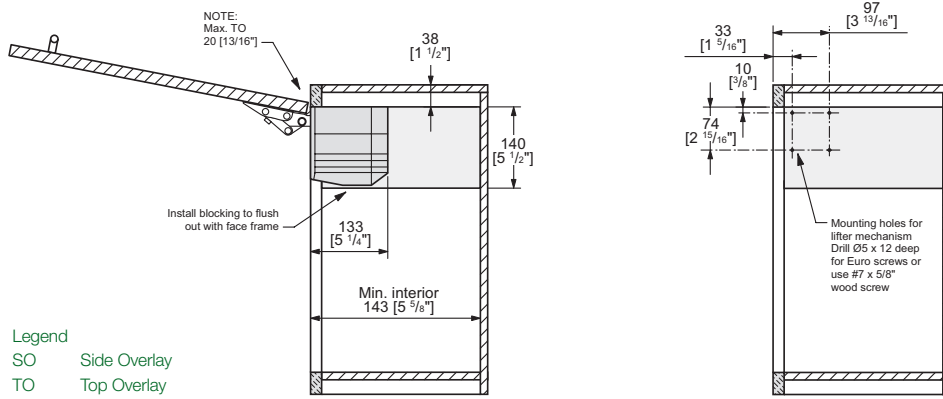
### Mounting and installation information for frameless applications



### Aluminum frame



# Mounting and installation information for face frame applications



# Kinvaro T-70

## Lifter System



The T-70 series opens a single door that pivots from the top of a wall cabinet. No concealed hinges are required in the top panel.

### Features

- The integral damping device slows down the door enabling a Soft-close®
- The Lifter permits a zero top reveal through its multi-pivot points allowing cabinets to be stacked
- Maximum door opening angle of 110°
- A wide range of cabinet doors can be accommodated
- Door opens with a light touch and remains in place from 45° to its top position
- Lifter mounts towards the top which enables multiple shelves
- Door height adjustment via cam of +/- 2mm [1 / 8"] through keyhole mounting screws

### Order information:

1. Hardware components are supplied as a set to mount on wooden or aluminum framed doors with a minimum 45mm [1 25/32"] stile width
2. The following combination of factors determine what spring configuration to use:  
Cabinet height and width, door weight
3. T-70 Lifter Sets include: Right & Left Hand Lifter units with integral door mounting brackets and gray cover caps, one set of balance springs are pre-installed, one extra pair of coded springs are included for alternate weight ranges.

## Step 1 - Choose the lifter set

- Lifter sets for wood doors also cover aluminum frame doors with a minimum stile width of 45mm [1 25/32"]

Order				
Door Type	Frame Width	Door Overlay	Item Number	PU
Wood	N/A	14 [9/16"]	<b>D271.200.33.25</b>	1
Aluminum Frame Overlay 14	19 [3/4"]	14 [9/16"]	<b>D271.252.93.25</b>	1
Aluminum Frame Overlay 17	19 [3/4"]	17 [11/16"]	<b>D271.252.53.25</b>	1

## Step 2 - Choose the correct spring configuration

- From the table on the right, choose the door height in the first column
- Cross reference to door weight in the second column
- Check door width from the third or fourth column depending on which type of handle will be used
- The combination of this data will determine which application to use and what springs to have in place
- Lifter units come with white springs preinstalled. Orange springs must be installed for applications ranging in the heavy duty table

Standard Applications - White springs mounted on both sides				Heavy Applications - Orange springs mounted on both sides			
Door Height	Door Wt. lbs. [kg]	Door width small handle	Door width bar handle	Door Height	Door Wt. lbs. [kg]	Door width small handle	Door width bar handle
300 [11 1/8"]	4.6 - 16.3 [2.1-7.4]	400 - 1200 [15 3/4" - 47 1/4"]	300 - 1000 [11 1/8" - 39 3/4"]	300 [11 1/8"]	5.5 - 18.7 [2.5-8.5]	500 - 1200 [19 1/8" - 47 1/4"]	450 - 1100 [17 1/8" - 43 3/8"]
350 [13 3/4"]	4.0 - 13.9 [1.8-6.3]	300 - 1200 [11 1/8" - 47 1/4"]	300 - 750 [11 1/8" - 29 1/2"]	350 [13 3/4"]	5.1 - 16.5 [2.3-7.5]	400 - 1200 [15 3/4" - 47 1/4"]	350 - 900 [13 3/4" - 35 3/8"]
400 [15 3/4"]	3.7 - 11.9 [1.7-5.4]	300 - 800 [11 1/8" - 31 1/2"]	300 - 600 [11 1/8" - 23 3/4"]	400 [15 3/4"]	4.6 - 15.0 [2.1-6.8]	300 - 1000 [11 1/8" - 39 3/8"]	300 - 750 [11 1/8" - 29 1/2"]
450 [17 1/8"]	3.5 - 10.3 [1.6-4.7]	300 - 650 [11 1/8" - 25 3/8"]	300 - 500 [11 1/8" - 19 1/8"]	450 [17 1/8"]	4.4 - 12.8 [2-5.8]	300 - 800 [11 1/8" - 31 1/2"]	300 - 600 [11 1/8" - 24 1/8"]
500 [19 1/8"]	3.3 - 8.8 [1.5-4]	300 - 550 [11 1/8" - 21 3/8"]	300 - 400 [11 1/8" - 15 3/4"]	500 [19 1/8"]	4.0 - 11.0 [1.8-5]	300 - 600 [11 1/8" - 24 1/8"]	300 - 500 [11 1/8" - 19 1/8"]
550 [21 3/8"]	3.1 - 8.1 [1.4-3.7]	300 - 400 [11 1/8" - 15 3/4"]	300 - 350 [11 1/8" - 13 3/4"]	550 [21 3/8"]	3.5 - 10.1 [1.6-4.6]	300 - 500 [11 1/8" - 19 1/8"]	300 - 400 [11 1/8" - 15 3/4"]
600 [23 3/8"]	3.1 - 7.3 [1.4-3.3]	300 [11 1/8" ]	N/A	600 [23 3/8"]	3.1 - 9.2 [1.4-4.2]	300 - 400 [11 1/8" - 15 3/4"]	300 - 350 [11 1/8" - 13 3/4"]

**Note: As there are adjustments for the spring balance and dampening force, rounding up or down to match your door height is possible.**

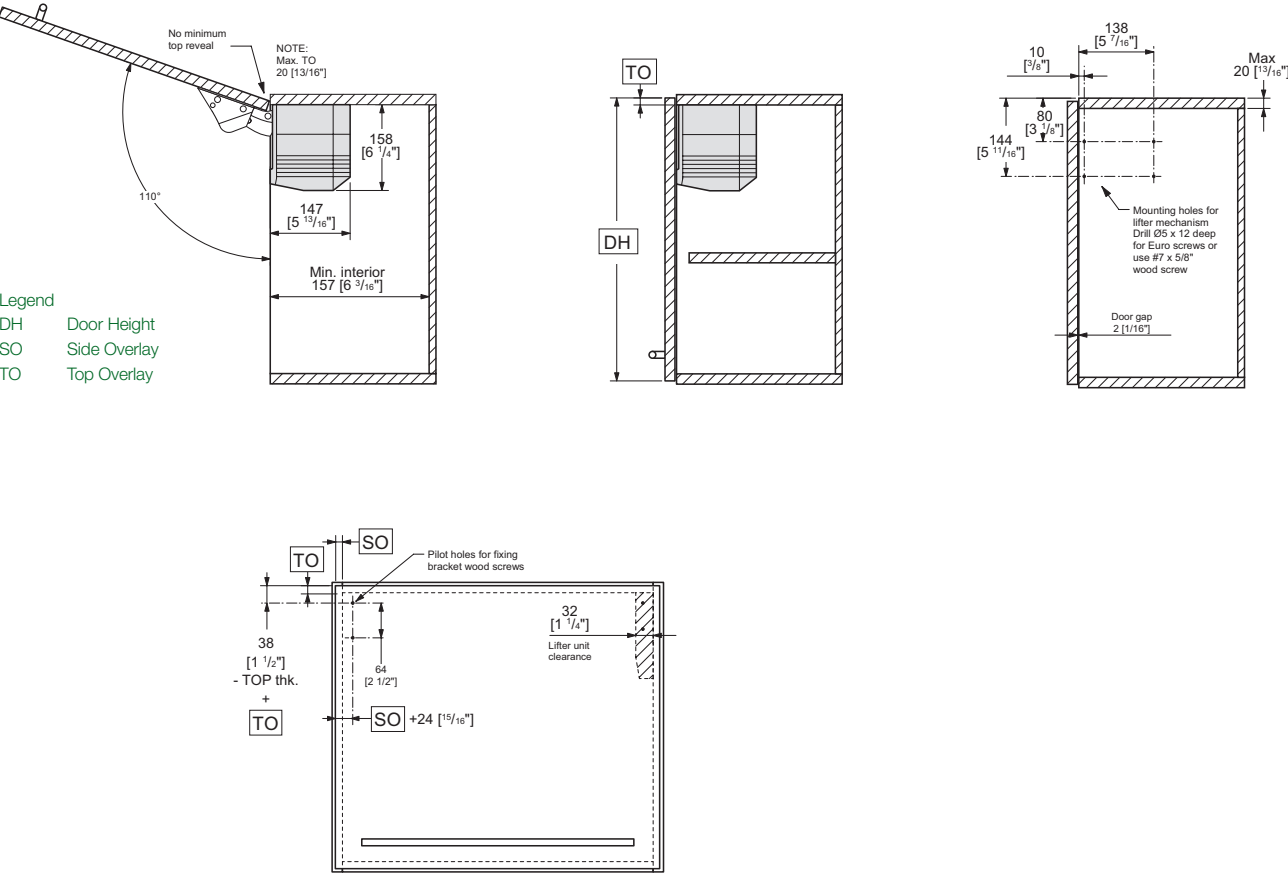
- Weights based on 19mm [3/4"] thick MDF door with bar handle
- Bar handle weight is calculated at .22 lbs per 100mm [4"]
- A trial application is recommended in all situations

PU = packaging unit

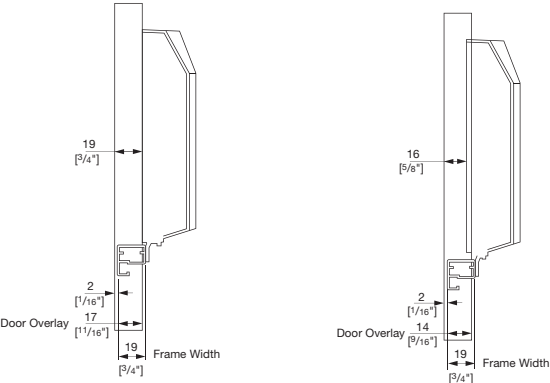
# Kinvaro T-70

## Lifter System

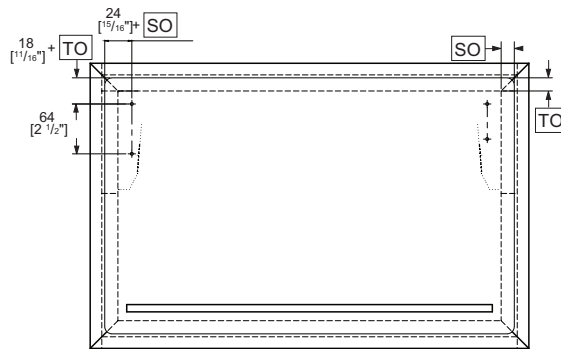
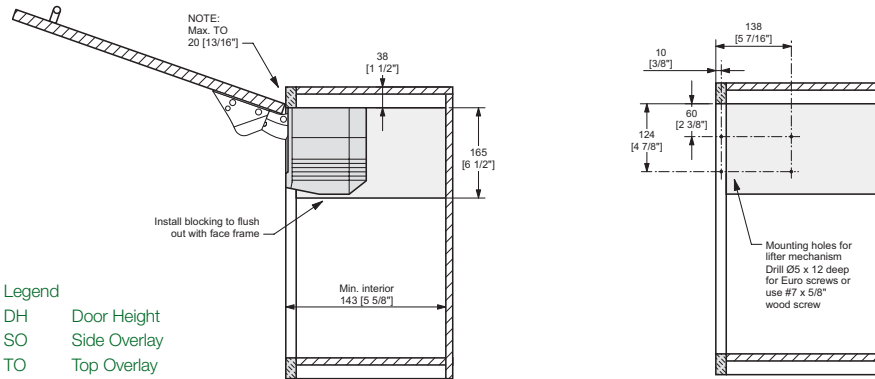
### Mounting and installation information for frameless applications



### Aluminum frame



## Mounting and installation information for face frame applications





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

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

**Internet: [www.grassusa.com](http://www.grassusa.com)**  
**E-Mail: [info@grassusa.com](mailto:info@grassusa.com)**

[www.grassusa.com](http://www.grassusa.com)

Grass Canada Inc.  
475 Finchdene Square, Unit 9  
Toronto, ON M1X 1B7

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

**Internet: [www.grasscanada.com](http://www.grasscanada.com)**  
**E-Mail: [info@grasscanada.com](mailto:info@grasscanada.com)**