

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⁽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)

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

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

⁽³⁾ 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	D287.601.81.25	1
5	C	D287.602.31.25	1
6	C	D287.602.81.25	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"]

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	D287.901.30.00	1

PU = packaging unit

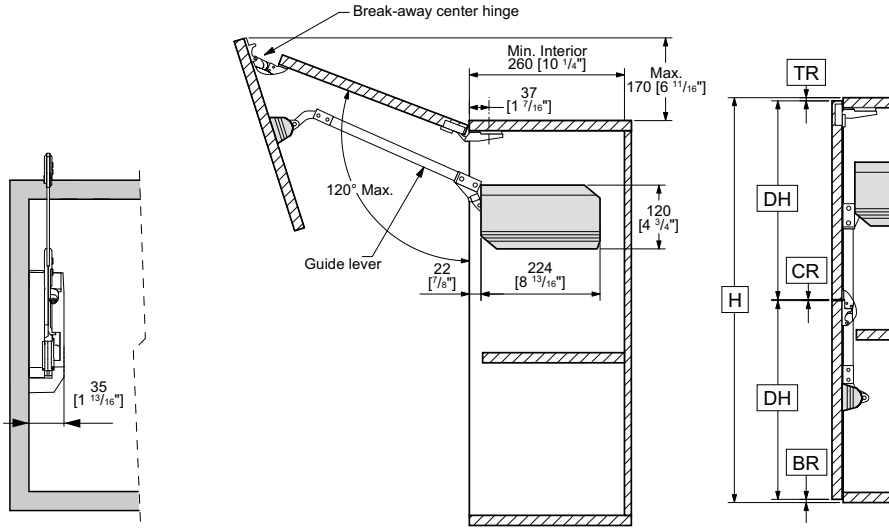
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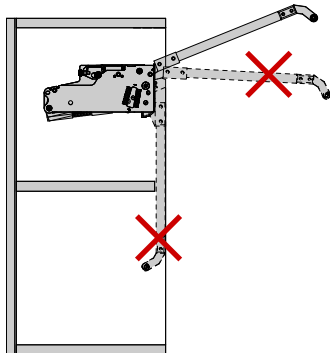
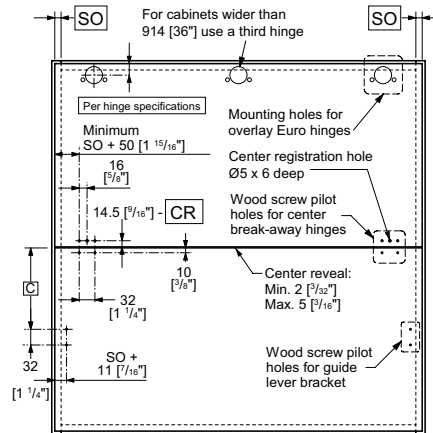
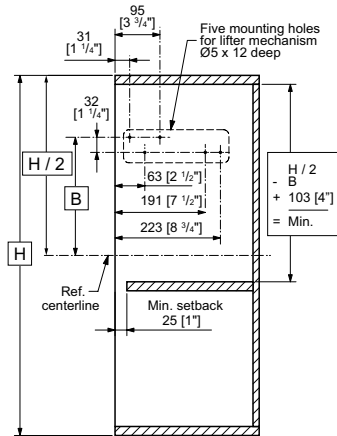
Mounting and installation information for frameless applications

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



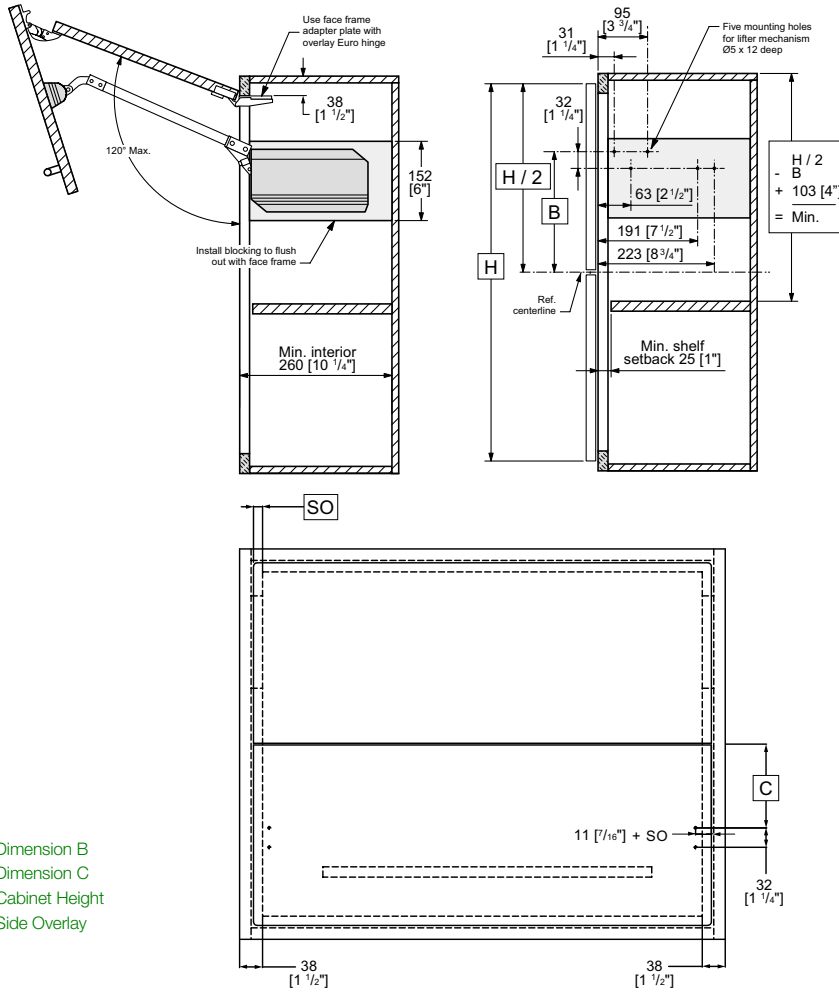
$$DH = (H - TR - CR - BR) / 2$$



Important!

Caution! Risk of injury!
Fitting is spring-loaded.

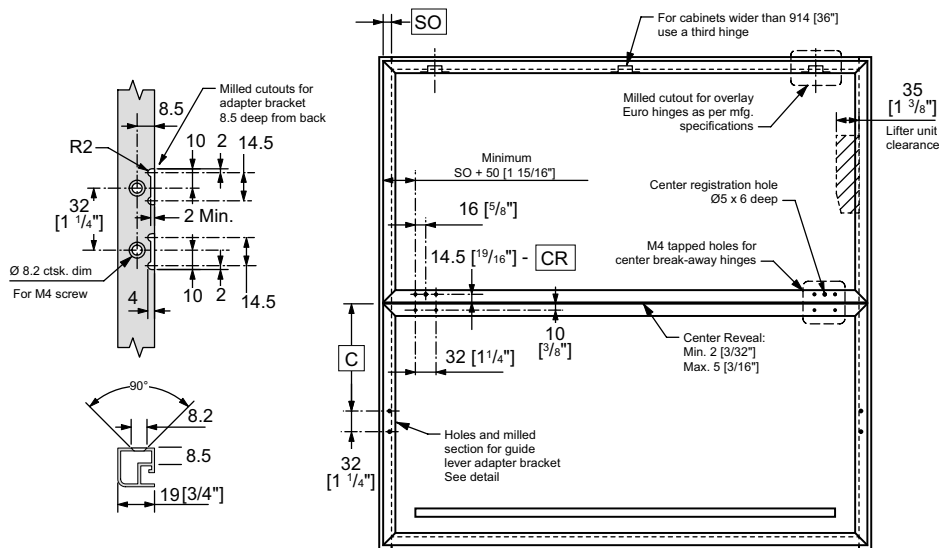
Mounting and installation information for face frame applications



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