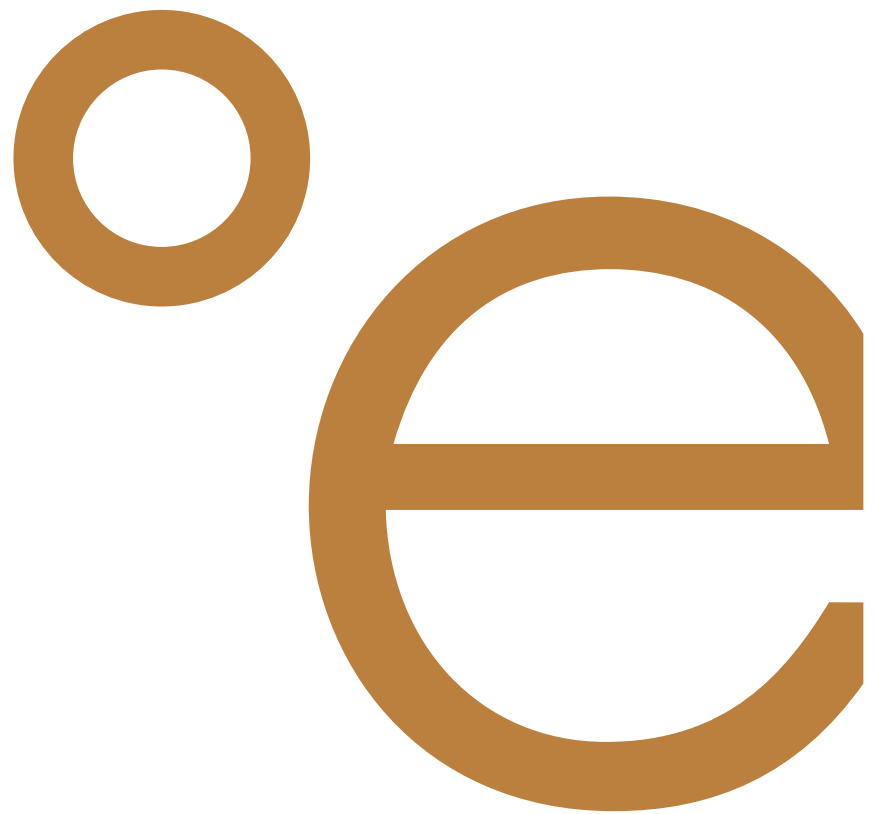


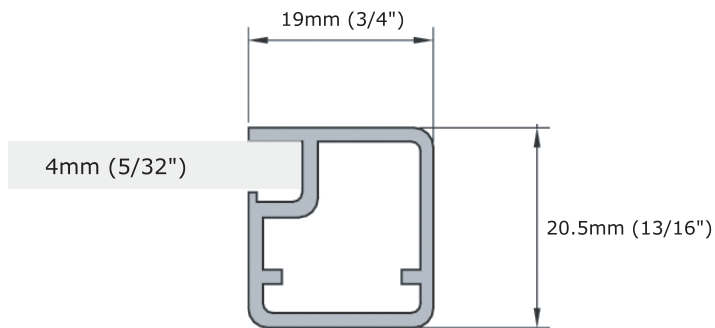
Technical Manual
AF Series Cabinetry Doors



°elementTM
D E S I G N S

Technical Specifications Subject to Change

PROFILE - AF001/ AF001S

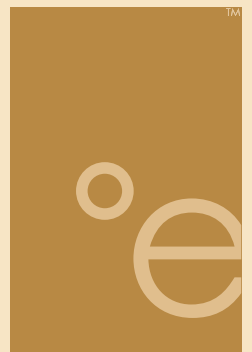


Size Limitations:

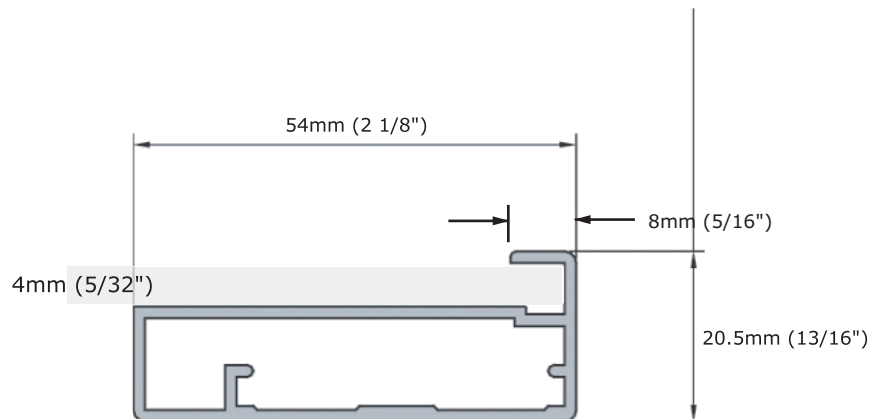
- Maximum height & width = 48" (1219mm)
- Minimum height & width = 5 1/2" (102mm)
- (not recommended for drawer fronts)

Finish Options:

- natural anodized aluminum finish
- brushed nickel finish (stainless steel look)



PROFILE - AF002/ AF002S

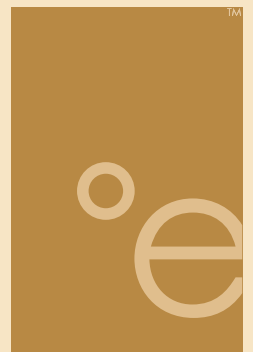


Size Limitations:

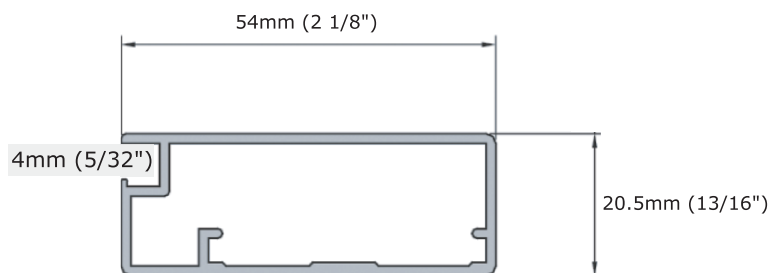
- Maximum height & width = 87 3/4" (2228mm)
- Minimum height & width = 5 1/2" (140mm)

Finish Options:

- natural anodized aluminum finish
- brushed nickel finish (stainless steel look)



PROFILE - AF003/ AF003S

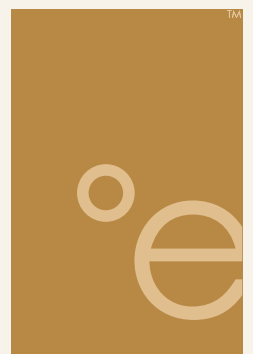


Size Limitations:

- Maximum height & width = 91 3/8" (2320 mm)
- Minimum height & width = 5 1/2" (140mm)

Finish Options:

- natural anodized aluminum finish
- brushed nickel finish (stainless steel look)



PROFILE - AF004/ AF004S

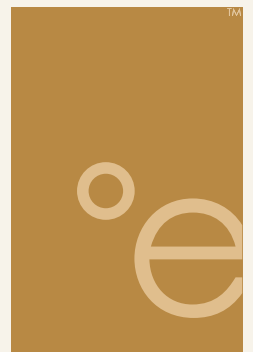


Size Limitations:

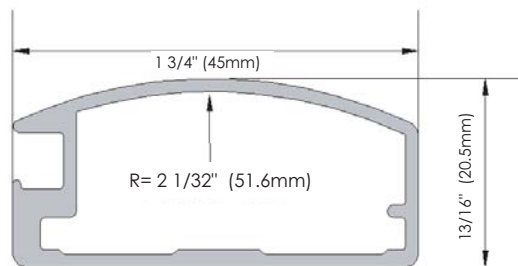
- Maximum height & width = 91 3/8" (2320 mm)
- Minimum height & width = 5 1/2" (140mm)

Finish Options:

- natural anodized aluminum finish
- brushed nickel finish (stainless steel look)



PROFILE - AF005/ AF005-S

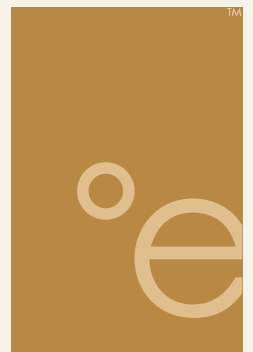


Size Limitations:

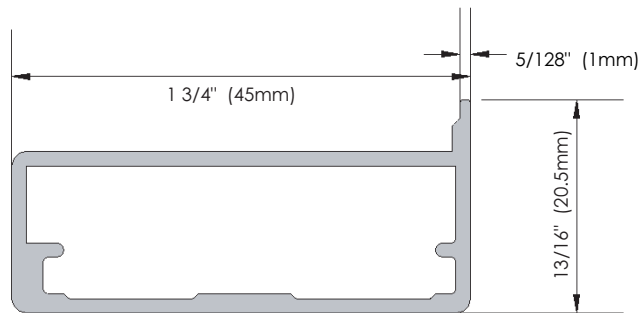
- Maximum height & width = 91 3/8" (2320 mm)
- Minimum height & width = 5 1/2" (140mm)

Finish Options:

- natural anodized aluminum finish
- brushed nickel finish (stainless steel look)



PROFILE - AF006/ AF006S

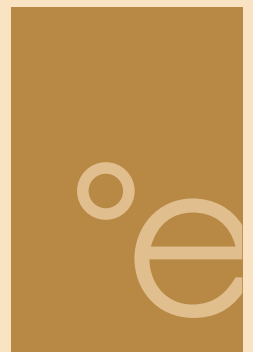


Size Limitations:

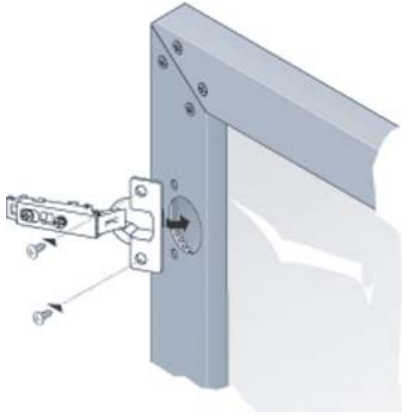
- Maximum height & width = 91 3/8" (2320 mm)
- Minimum height & width = 5 1/2" (140mm)

Finish Options:

- natural anodized aluminum finish
- brushed nickel finish (stainless steel look)

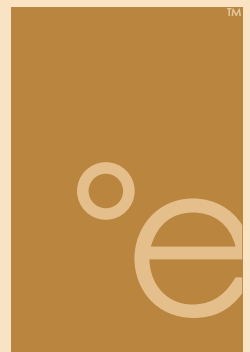
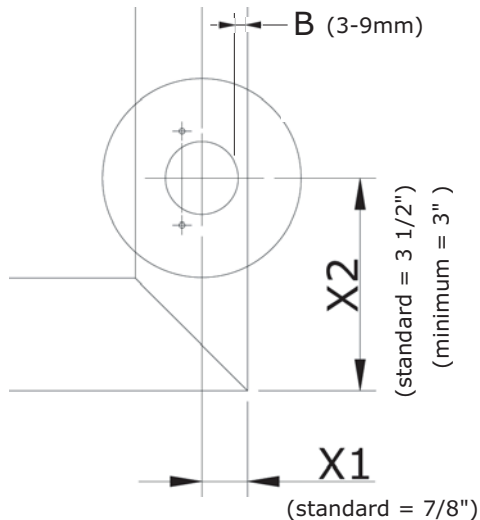
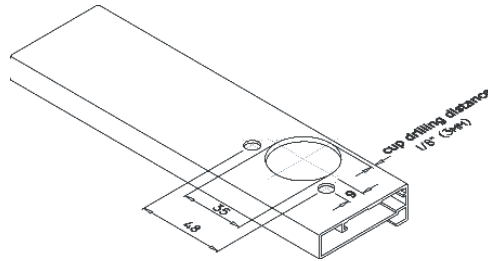


Hinge Boring Specification: AF002, AF003, AF004, AF005 and AF006



- Supports any type of concealed (European) hinge for framed and frameless cabinets.
- Must be screw-in type hinge
- Maximum cup depth of 12mm.
- Customer must specify hinge manufacturer and provide boring pattern at time of order.
- For 35mm hinge cup: 3" minimum from top and bottom of door to center of cup [X2 on fabrication specification sheet]
- B dimension (door edge to cup edge) can be between 3 and 9mm
 $X1 = B + 17.5\text{mm}$ (1/2 of cup diameter)
- For other cup sizes, contact Element Designs for boring instructions.

Example:

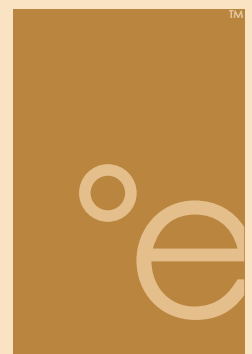
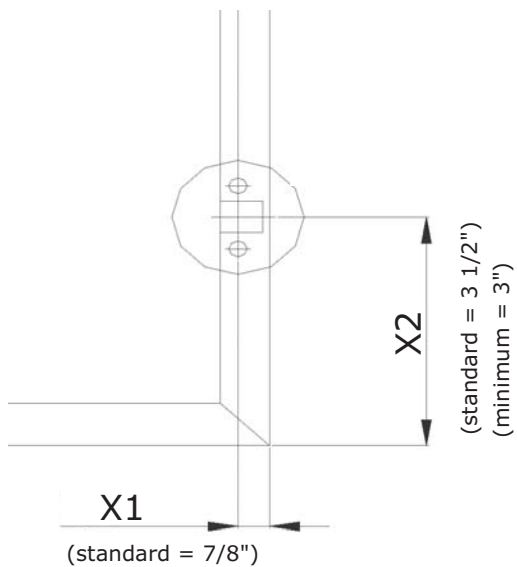
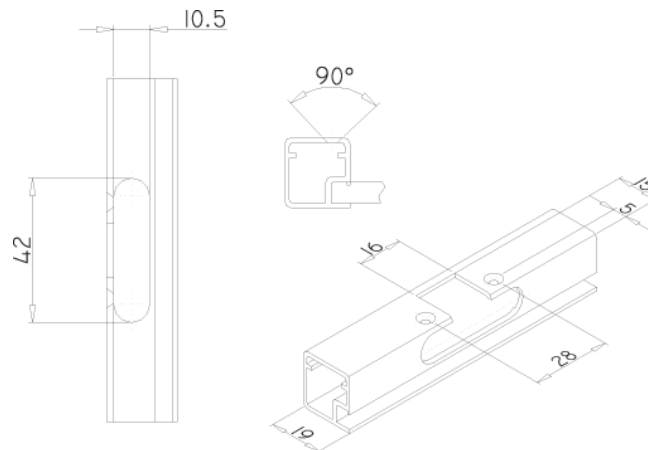


Hinge Boring Specification: AF001



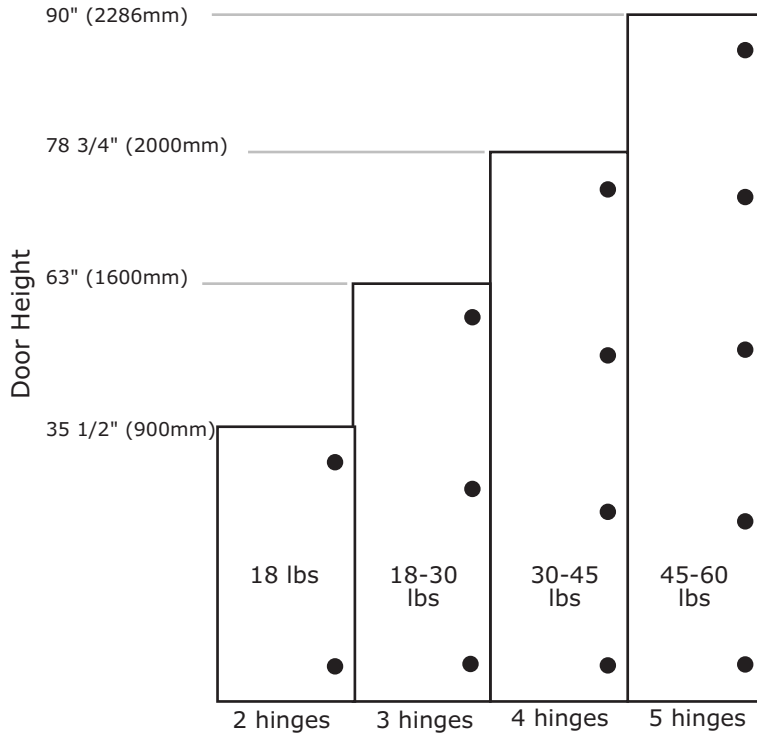
- Requires special narrow frame hinge for aluminum frames.
- Customer must specify hinge manufacturer and provide boring pattern at time of order.
- For hinge cutout: 3" minimum from top and bottom of door to center of cup [X2 on fabrication specification sheet]

Example:



Recommended Number of Hinges per Door - AF Series

The number of hinges required is dependent on the size and weight of the door. Use the diagram below to determine the required number of hinges.



(All doors are 24"W on chart for calculation purposes.)

- Hinge quantity and location requirements may vary by hinge manufacturer.
- This chart reflects doors without accessory hardware.

Approximate Door Weight Calculation (All weight in lbs)	
AF001 Profile/ Linear Ft.	.217/ ft
AF002 Profile/ Linear Ft.	.413/ ft
AF003 Profile/ Linear Ft.	.428/ ft
AF004 Profile/ Linear Ft.	.390/ ft
AF005 Profile/ Linear Ft.	.390/ ft
AF006 Profile/ Linear Ft.	.380/ ft
Door Hardware AF001	0.23
Door Hardware AF002/03/04/05/06	0.53
Glass Insert/ Sq.Ft.	2.05
Acrylic Insert/ Sq.Ft.	1.0

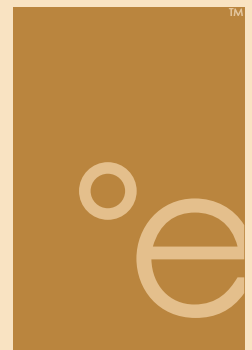
Example: 36"H x 24"W AF002 Door

profile: $36 + 36 + 24 + 24 = 120 \text{ lin. in} = 10 \text{ linear feet} \times .413 \text{ lb/ft} = 4.1 \text{ lbs}$

hardware: $.5 \text{ lbs}$

glass: $35 \frac{11}{16}'' \times 23 \frac{11}{16}'' = 845.3$
 $845.3/144 = 5.9 \text{ sf} \times 2.05 \text{ lbs/ sf} = 12.1 \text{ lbs}$

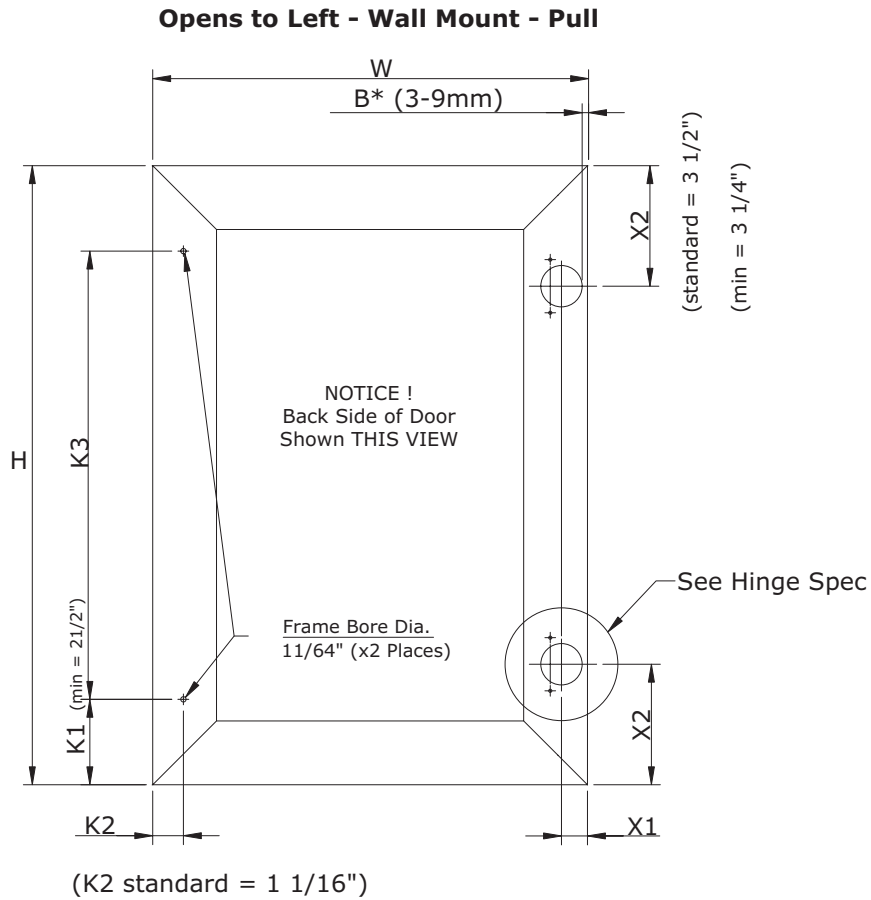
Total: $4.1 \text{ lbs} + .5 \text{ lbs} + 12.1 \text{ lb} = 16.7 \text{ lbs}$



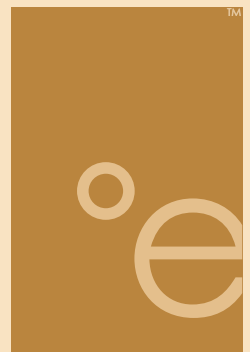
Door Specifications

Refer to Fabrication Specification Sheets for detailed specifications.

Example 1:
AF002 LWP



Minimum Hinge & Hardware Boring Locations (from corner of profile)		
Profile	Hinge Center	Knob/ Pull Center
AF001	3" (64mm)	2" (50mm)
AF002	3" (76.2mm)	2 1/4" (57.2mm)
AF003	3" (76.2mm)	2 1/4" (57.2mm)
AF004	3" (76.2mm)	2 1/4" (57.2mm)
AF005	3" (76.2mm)	2 1/4" (57.2mm)
AF006	3" (76.2mm)	2 1/4" (57.2mm)



Handle Options

Knobs



K001

material: aluminum
width: 16mm (5/8")
height: 21mm (13/16")



K005

material: aluminum
width: 14mm (9/16")
height: 23mm (7/8")



K006

material: aluminum
width: 9mm (3/8")
height: 18mm (11/16")
length: 34mm (1 5/16")



K007

material: aluminum
width: 14mm (9/16")
height: 23mm (7/8")



K008

material: aluminum
width: 25mm (1")
height: 27mm (1 1/16")



K009

material: aluminum
width: 17mm (11/16")
height: 26mm (1")

Handle Screw Size: M4 x 25mm

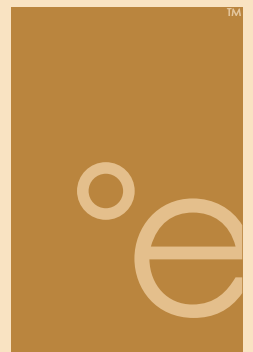
Pulls



P001

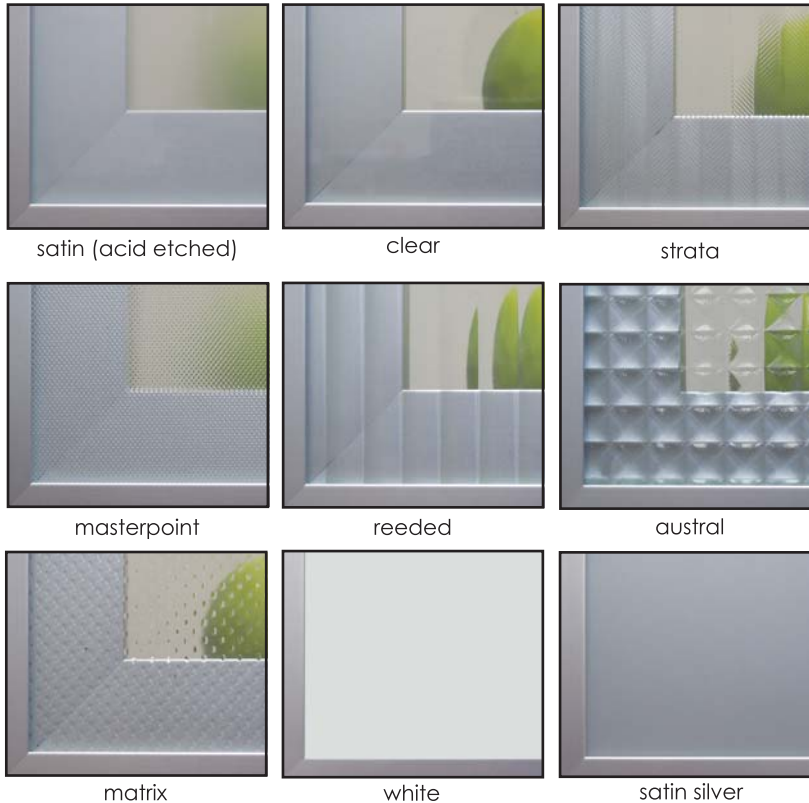
material: aluminum
width: 12mm (1/2")
height: 35mm (1 3/8")

Lengths (mm)	187	250	310	440	700	940
(in)	7 3/8"	9 13/16"	12 3/16"	17 5/16"	27 9/16"	37"
Hole c.c. (mm)	127	190	250	380	640	880
(in)	5"	7 1/2"	9 13/16"	14 15/16"	25 3/16"	34 5/8"

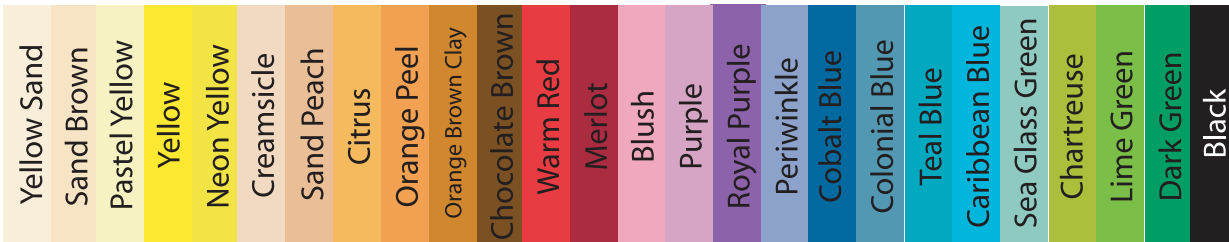


Insert Options - Glass

- all glass is tempered safety glass
- pre-assembled doors without inserts are also available
- glass inserts are 5/32" (4mm) thick
- standard is etched/ patterned side facing out unless otherwise specified
- small pieces of glass with a diagonal < 12" cannot be tempered



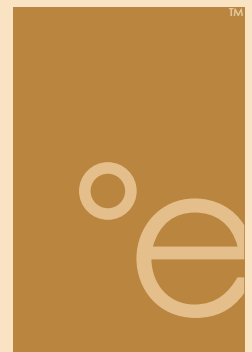
Colored Glass:



To Calculate Insert Size:

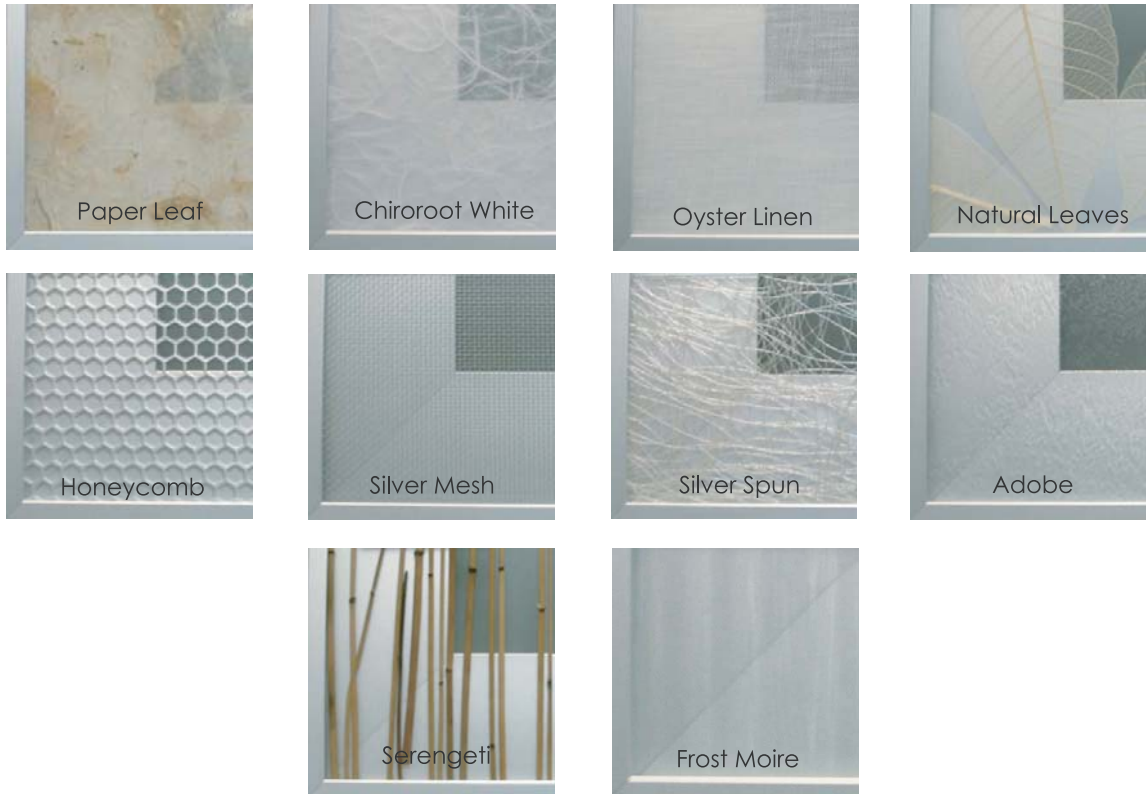
Profile	Insert Height	Insert Width	Hole Location
AF001	- 1 3/16"	- 1 3/16"	- 5/8"
AF002	- 1/4"	-1/4"	-1/8"
AF003	- 3 15/16"	- 3 15/16"	- 2"
AF004	-13/16"	-13/16"	- 7/16"
AF005	-3 3/16"	- 3 3/16"	-1 9/16"
AF006	-3/16"	-3/16"	-1/8"

Example: AF002 Door, 36"H x 18"W
 H: 36" - 1/4" = 35 3/4"
 W: 18" - 1/4" = 17 3/4"
 Insert dimensions: 35 3/4"H x 17 3/4"W



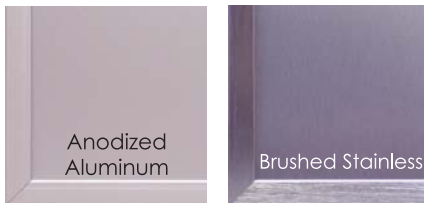
Insert Options - Lumicor and Aluminum

Lumicor Architectural Resin Inserts



- Lumicor inserts are 5/32" (4mm) thick

Aluminum Inserts



- aluminum inserts are 5/32" (4mm) thick
- 1mm aluminum sheets adhered to both sides of an acrylic core
- reverse side of aluminum insert is standard matte gray

To Calculate Insert Size:

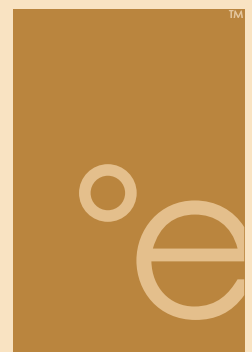
Profile	Insert Height	Insert Width	Hole Location
AF001	- 1 3/16"	- 1 3/16"	- 5/8"
AF002	- 1/4"	- 1/4"	- 1/8"
AF003	- 3 15/16"	- 3 15/16"	- 2"
AF004	- 13/16"	- 13/16"	- 7/16"
AF005	- 3 3/16"	- 3 3/16"	- 1 9/16"
AF006	- 3/16"	- 3/16"	- 1/8"

Example: AF002 Door, 36"H x 18"W

$$H: 36" - 1/4" = 35 3/4"$$

$$W: 18" - 1/4" = 17 3/4"$$

Insert dimensions: 35 3/4"H x 17 3/4"W

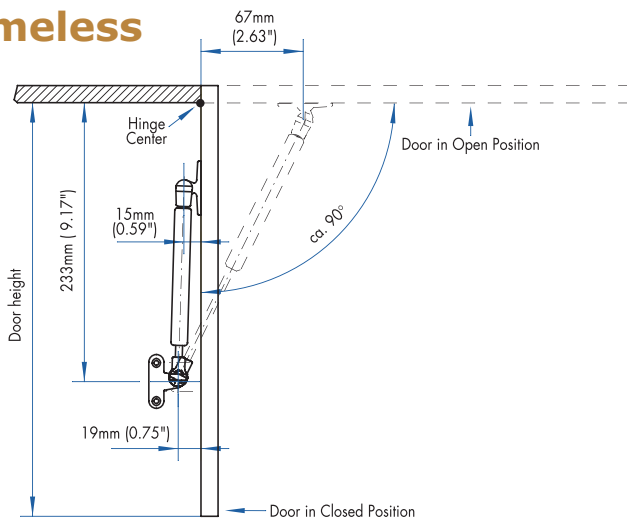


Gas Spring Lifters

- Can be used with any door profile
- Effortless opening of doors and lids
- Softer and quieter closing
- Smooth motion and stopping
- Secure holding in open and closed positions
- Easy to mount/install
- Compact and attractive design
- Maintenance free



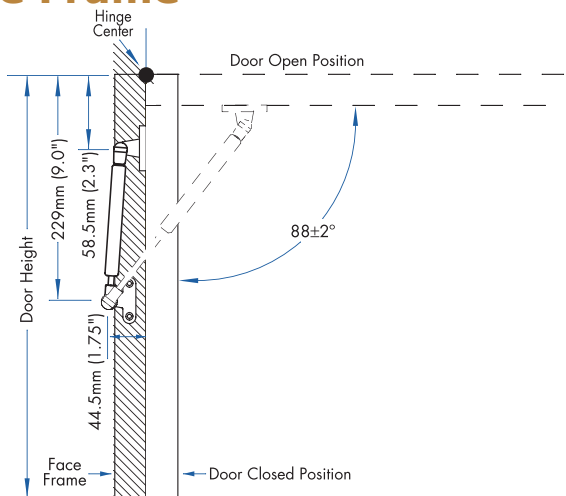
Frameless



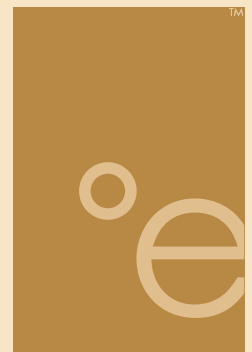
Installation Applications

The best mounting orientation for each construction is shown.

Face Frame



All measurements should be made from the hinge center.

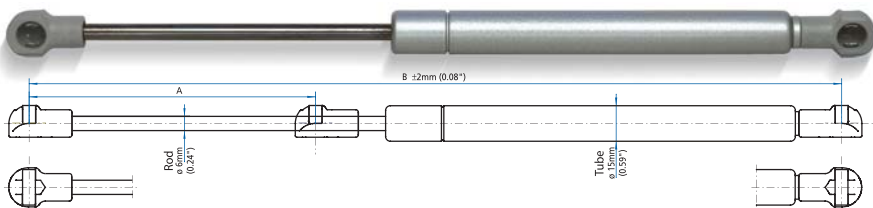


Gas Spring Lifter Selection Guide

Door height	Door weight							
	2 - 3 kg (5 - 7 lb)		3.5 - 4.5 kg (8 - 10 lb)		5 - 6 kg (11 - 13 lb)		6.5 - 9 kg (14 - 20 lb)	
	Quantity	Force	Quantity	Force	Quantity	Force	Quantity	Force
254 - 305 mm (10 - 12 in)	2	100 N (22.5 lb)	2	100 N (22.5 lb)	2	100 N (22.5 lb)	2	150 N (33.7 lb)
330 - 380 mm (13 - 15 in)	2	100 N (22.5 lb)	2	100 N (22.5 lb)	2	150 N (33.7 lb)	2	200 N (45.0 lb)
406 - 457 mm (16 - 18 in)	2	100 N (22.5 lb)	2	100 N (22.5 lb)	2	150 N (33.7 lb)	2	200 N (45.0 lb)
483 - 533 mm (19 - 21 in)	2	100 N (22.5 lb)	2	150 N (33.7 lb)	2	200 N (45.0 lb)	2	250 N (56.2 lb)
559 - 610 mm (22 - 24 in)	2	100 N (22.5 lb)	2	150 N (33.7 lb)	2	200 N (45.0 lb)	Application Assistance Required	

Selection Guide Notes: The values indicated are guidelines only. We recommend a functional check in the application itself, to take into consideration factors including exact center of gravity position, system friction, handles, etc. The use of different panel materials or different hinges may yield different results.

The forces given are guideline values and refer to the installation as shown on the front page. The assumed opening angle is approximately 90°. Opening angle variations are achieved by adjusting the rod end mounting position.



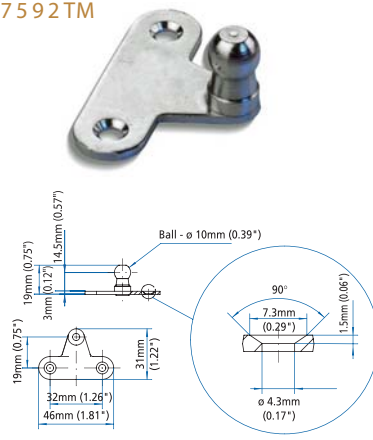
Gas Springs and End Fittings for Mounting on Cabinet Doors

Stroke (A)	Extended Length (B)	Force (F1)	Kit Pack 1R (includes 2 gas springs, 2 bracket 7592TM and 2 bracket 6284UG)
80mm (3 5/32")	235.5mm (9 1/4")	100 N (22.5 lb)	L8124UG
		150 N (33.7 lb)	L8125UB
		200 N (45.0 lb)	L8126UX
		250 N (56.2 lb)	L8127US

* For AF001/ AF001S Doors - Must use additional cabinet adapter plate (7592TM) in place of door adapter plate (6284UG).

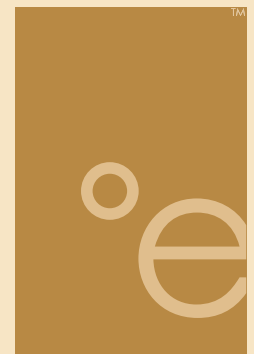
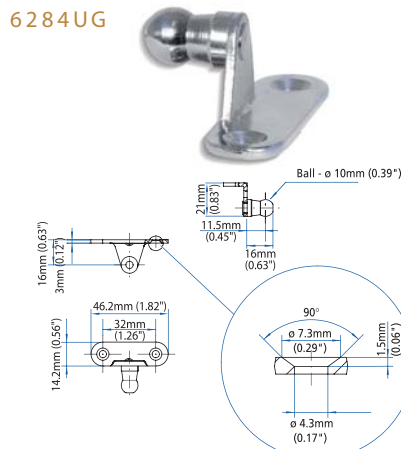
Cabinet Adapter Plate

7592TM



Door Adapter Plate

6284UG



Sliding Hardware for Small Doors

- For use with AF001, AF002, AF003, AF004, AF005, & AF006 profile doors
- For doors up to 15.4 lbs (7 kg/ door)

SH60.7670.7731 Hardware Set

Consists of:

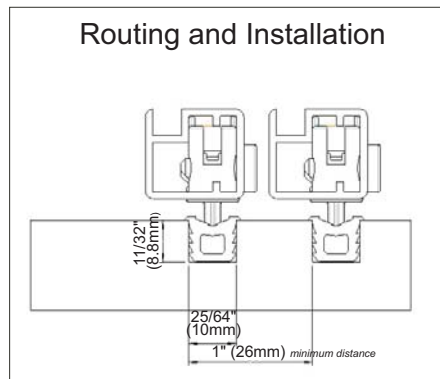
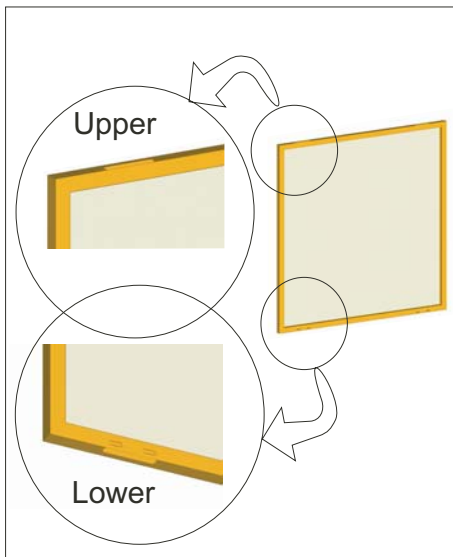
- 4 spring loaded roller sets - 2 rollers for the upper and 2 rollers for the lower section
- 4 housings for the rollers - 2 for the upper section and 2 for the lower section
- 2 slides to adjust door fitting on lower section of door

SH20.8360.7731 Sliding Door Rail - 98.4" (2500mm) length

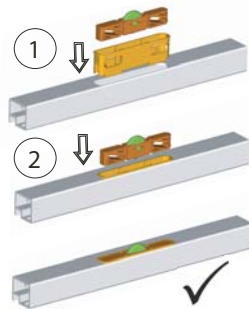
For mounting on top and bottom of opening

To determine the overall door height, subtract 1/4" from the opening height of the cabinet.

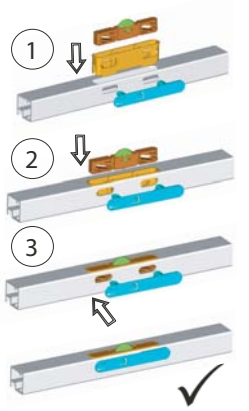
The lower door sections are supported and held in place by the slide. The sliding door can be adjusted without tools by 3/32" (2mm) in height.



Upper Assembly



Lower Assembly



The Assembly Sequence:

Follow both the upper and lower assembly illustration of the hardware to the door profile (see left)

Install the back door first.

To install the door in the track, insert the upper two rollers into the upper inner rail. Press the door upwards in order to go over the lower inner rail. The door will then fall into place in both upper and lower rails. Adjust the two rollers with the slide in a somewhat central position and straighten the door out.

Repeat the installation with the front door.

