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# Sliding Door Technical Manual



Element Designs is the leading manufacturer of custom aluminum frame doors in North America. All of our doors are built to our customers' specifications within 1/16". Our aluminum frame door program offers numerous profile options in several finishes and a vast selection of inserts to accent virtually any interior application. Element Designs can provide complete door systems with sliding hardware and guides/ rails cut to size, making the door installation process simple.

Our customer service, quick lead times and quality are the foundation of our company. Our nation-wide network of sales representatives and distributor locations provide a superior level of support to our customers and are always available to assist you with your order.

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## Frame Profiles



Door weight calculator can be found online: <https://www.element-designs.com/technical>

## Profile Finishes

## Anodized



natural aluminum (N)



brushed stainless (S)

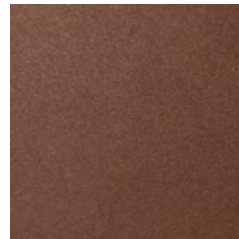
## Coated



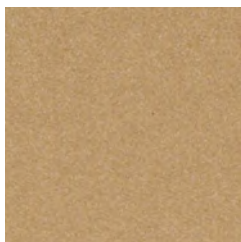
graphite (GR)



arctic silver (AS)



luxe bronze (LB)



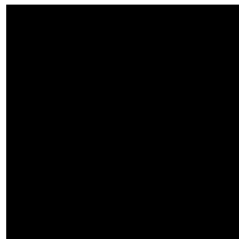
gold (GLD)



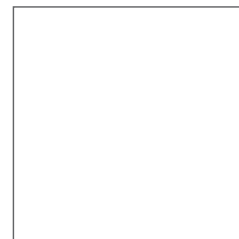
copper (C)



modern brass (MB)

onyx (X)  
*matte black*

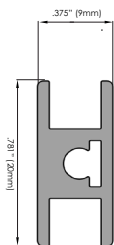
bronze matte (BZM)

chalk (CK)  
*matte white*

black (B)

# Divider Rail - Single & Multiple Inserts

- Divider rails can be used with large sliding doors to provide additional design options
- Contact Element Designs for panel height and width limitations with integrated divider rails
- Multiple inserts may be used per door with divider rail
- Rail measures 25/32" (20mm) wide
- For use with the following profiles:  
AF001, AF003, AF007, AF009, AF011, AF013

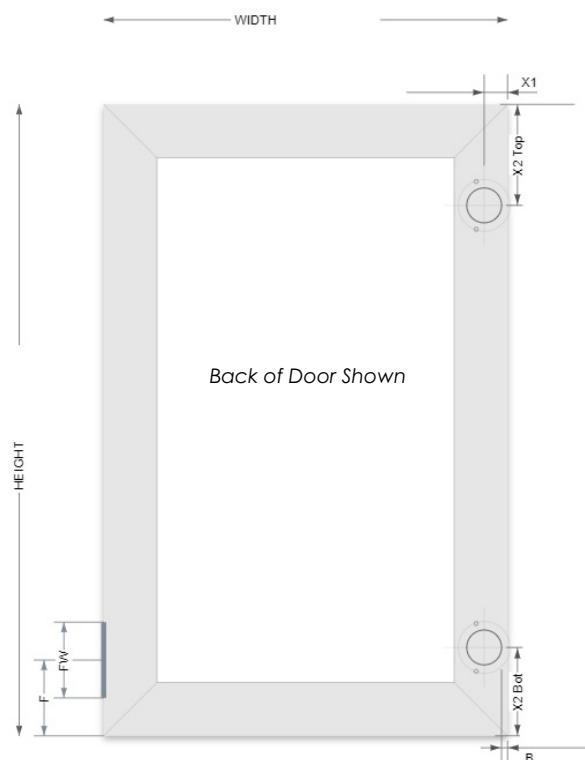
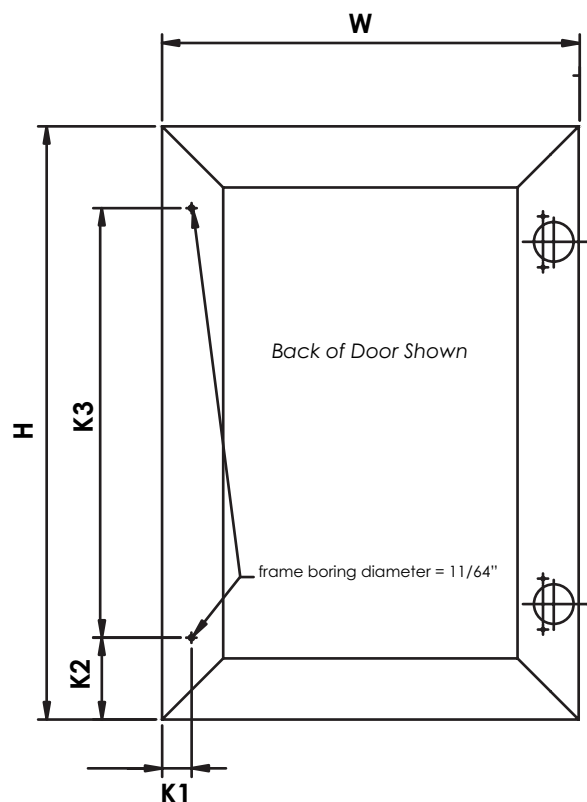


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## Divider Rail Inserts & Locations

<b>D1 =</b> _____ (top of door to center of divider rail)	<b>Panel 1</b> Insert: _____
<b>D2 =</b> _____ (center of divider rail to center of divider rail or bottom of door if applicable)	<b>Panel 2</b> Insert: _____
<b>D3 =</b> _____ (center of divider rail to center of divider rail or bottom of door if applicable)	<b>Panel 3</b> Insert: _____
<b>D4 =</b> _____ (center of divider rail to center of divider rail or bottom of door if applicable)	<b>Panel 4</b> Insert: _____





Profile	K2 Standard (Knob/ Pull Center from door edge)	K2 Minimum (Knob/ Pull Center from door edge)	K1 Standard (centered on profile)	Std. Handle Boring Through Glass (If yes, customer MUST specify hole location at order)	Flush Mount P3-42 Minimum (center of 3" pull to door edge)
AF001	2.5" (63.5mm)	2" (50.8mm)	.375" (10mm)	NO	3.75" (95.2mm)
AF002	2.5" (63.5mm)	2.25" (57mm)	1.063" (27mm)	YES	3.75" (95.2mm)
AF003	2.5" (63.5mm)	2.25" (57mm)	1.063" (27mm)	NO	3.75" (95.2mm)
AF004	2.5" (63.5mm)	2.25" (57mm)	1.156" (29mm)	YES	3.75" (95.2mm)
AF006	2.5" (63.5mm)	2.25" (57mm)	1.063" (27mm)	YES	3.75" (95.2mm)
AF007	2.5" (63.5mm)	2.25" (57mm)	1.375"	NO	3.75" (95.2mm)
AF009	2.5" (63.5mm)	2.25" (57mm)	.875" (22mm)	NO	3.75" (95.2mm)
AF010	2.5" (63.5mm)	2.25" (57mm)	1.063" (27mm)	YES	NOT AVAILABLE
AF011	2.5" (63.5mm)	2.25" (57mm)	1.125" (29mm)	NO	3.75" (95.2mm)
AF012	3.625" (92mm)	3.625" (92mm)	Contact Element	YES	5.125"
AF013	3.625" (92mm)	3.625" (92mm)	0.5" (13mm)	NO	5.125"
AF014	2.5" (63.5mm)	2.25" (57mm)	1.125" (29mm)	YES	3.75" (95.2mm)
AF015	2.5" (63.5mm)	2.25" (57mm)	0.781" (20mm)	NO	3.75" (95.2mm)
AF016	2.5" (63.5mm)	2" (50.8mm)	Contact Element	YES	3.75" (95.2mm)
AF210	2.5" (63.5mm)	2.25" (57mm)	1.063" (27mm)	YES	NOT AVAILABLE

- Standard Aluminum Handle Boring Diameter = 11/64" (4.3mm)
- Standard Glass Handle Boring Diameter = 5/16" (8mm)

\* Doors with standard handle hole in glass come with plastic grommet installed, which should be left in place when handle is installed to protect edge of glass hole and to prevent overtightening and glass shattering



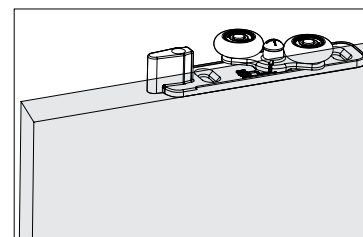
## Bottom Glide RO44

### Design Guidelines:

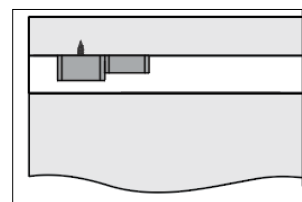
- Floor Sliding System, top guide and bottom track
- Multiple doors per system, inset or surface mount track
- Floor to ceiling and inset casework applications
- Reference Sliding Systems At A Glance for maximum door dimensions
- Doors weighing up to 132 lbs (60 kg)



Top Door Guides  
(2 per door - Soft Close mechanisms available)



Adjustable Position  
Door Stops



Bottom Load Bearing  
Roller System  
(2 per door - preinstalled)



Link to Sliding Hardware Video: [Click Here](#)  
Optional Soft Close Mechanism (Comfort 240): [Click Here\\*](#)





## Bottom Glide RO44

**Application Type:** LARGE sliding door applications (floor to ceiling, closets / wardrobes, interior openings)

**Tracks & Guides:** Surface mount floor track (double or single), double or single top guide

**Available with AF002, AF003, AF004, AF006, AF007, AF009, AF010, AF011, AF014, AF015**

**Planes of Travel:** multiple doors on multiple planes of travel

### FEATURES AND BENEFITS

Brakes and/or actuators installed inside track maintain door position.

Easy to install doors with height adjustment system.

High quality rollers provide smooth and silent sliding motion.

Soft close mechanisms available.

### DESIGN GUIDELINES

**Door weight max:** 60kg (~132 lbs)

**Door weight min:** 15kg (~33 lbs)

**Recommended Door height max:** 96" (contact Element Designs for taller dimensions)

**Door width:**

Double soft close: min 27.5"

No soft close: min 20"





## Bottom Glide RO44 Carrier Kit

Includes:



2 Door Carriers  
(pre-installed on door)

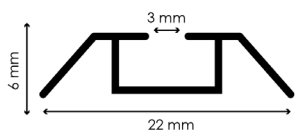
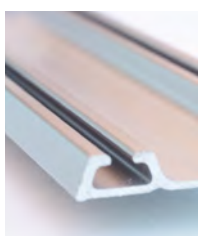


2 Door Guides  
(pre-installed on door)

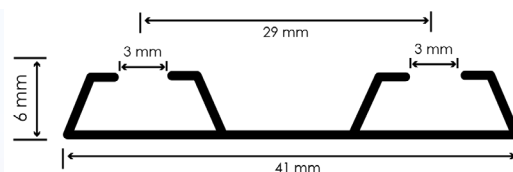
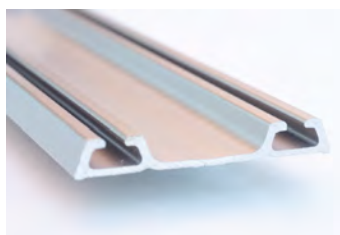


2 Brakes  
(installed in top guide by customer)

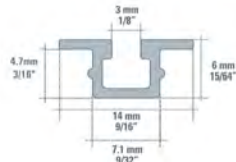
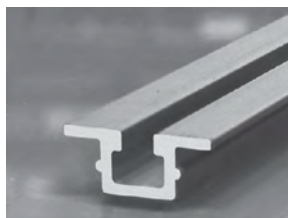
## Tracks & Guides



Surface Mount Single Track  
2m length



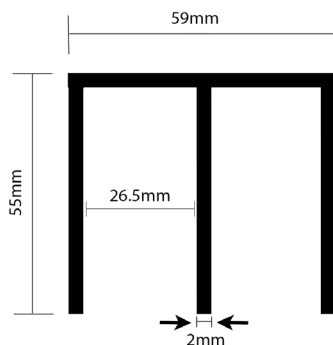
Surface Mount Double Track  
3m or 2m length



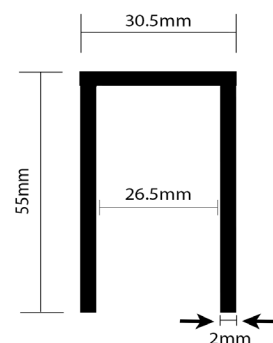
Inset Single Track 2m length



Top Guide, Double  
90", 120" or 138" lengths available



Top Guide, Single  
90", 120" or 138" lengths available

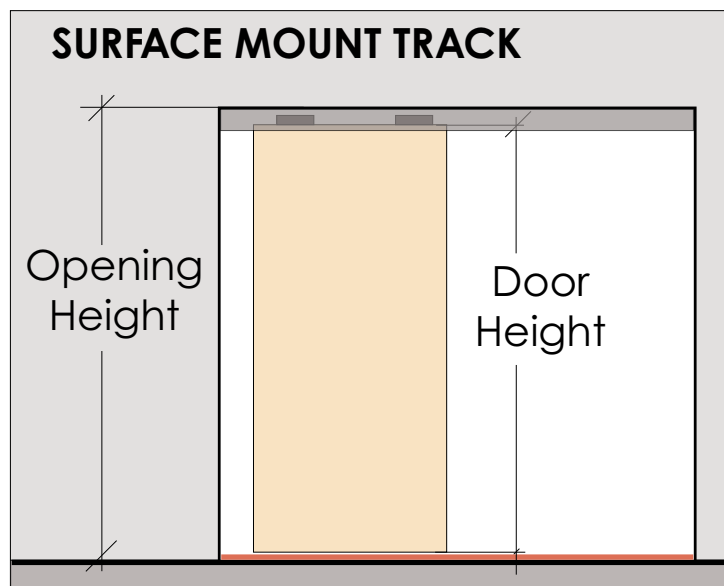


## Soft Close

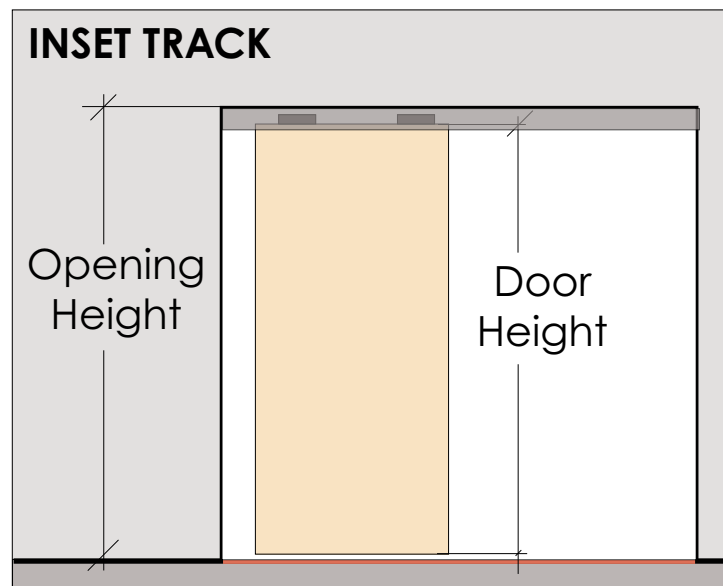


OPTIONAL: Soft Close Mechanism  
(Comfort 240)

## Door Height Calculation



**SURFACE MOUNT TRACK:**  
 Door Height = Opening Height - 36mm



**INSET TRACK:**  
 Door Height = Opening Height - 31mm

## Door Width Calculation

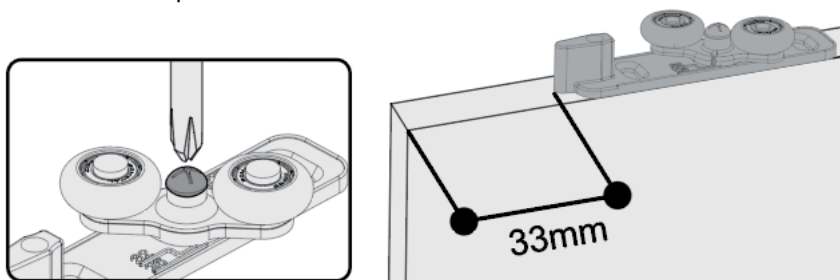
Door Width = (Opening width ÷ # of doors) + (profile width\* ÷ 2)

\*Profile Width:

- AF002 = 2 1/8" (54mm)
- AF003 = 2 1/8" (54mm)
- AF004 = 1 3/4" (45mm)
- AF006 = 1 3/4" (45mm)
- AF007 = 2 3/4" (70mm)
- AF009 = 2 1/2" (63.5mm)
- AF010 = 2 1/8" (54mm)
- AF011 = 2 1/4" (57.2mm)
- AF014 = 2 1/8" (54mm)
- AF015 = 2 11/32" (60mm)
- AF210 = 1 3/4" (45mm)

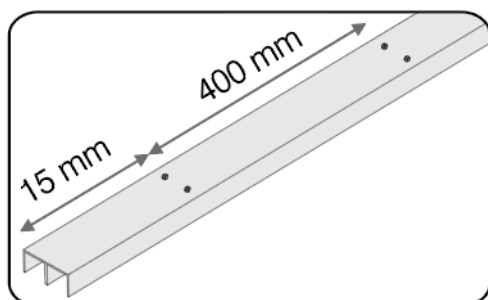
## Top Door Guide Wheel Adjustment

Tighten the screw on door guide to lock wheels into place.



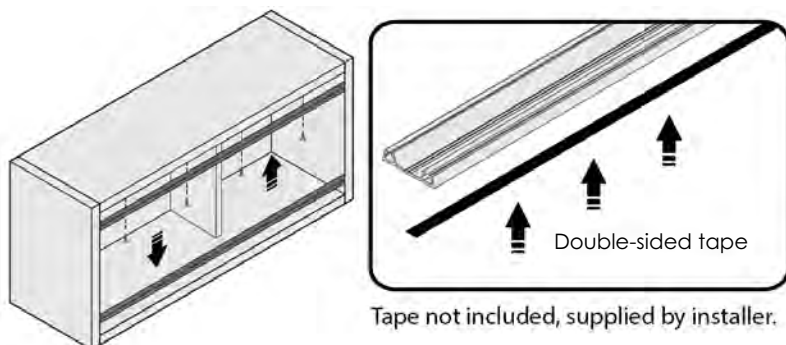
## Install Top Guide

Drill a hole in the center of each channel per drawing.

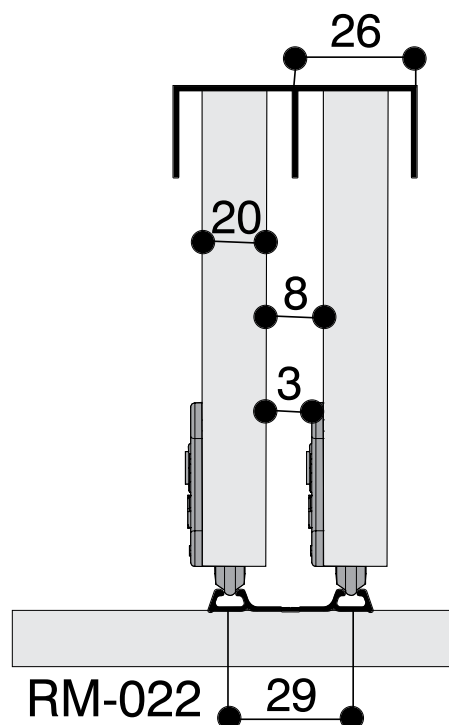


Countersink screws when installing top guide if possible. This will avoid possible interference with guides if using a lightweight door or if door is slightly oversized.

## Install Bottom Track



## Track and Guide Placement

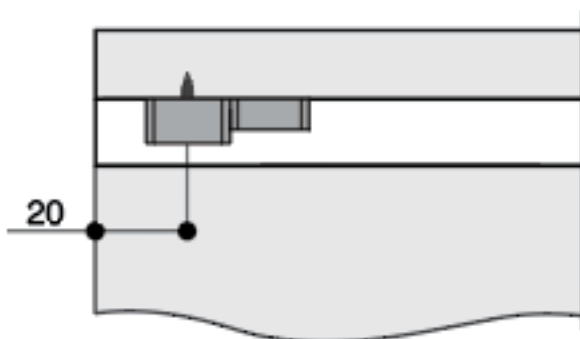




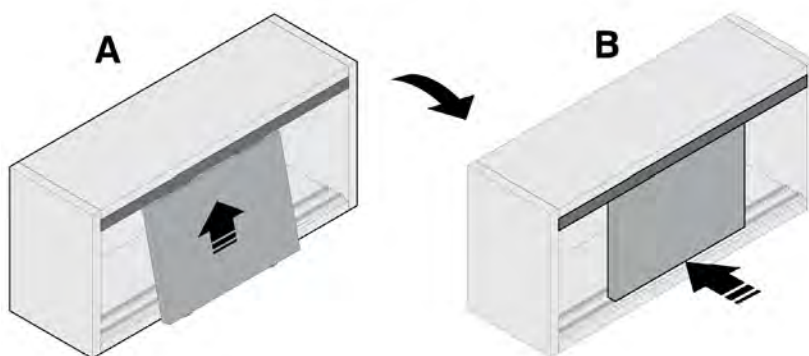
## Brake Installation

Attach the brake to the top track with appropriate screw. (Pre-drill pilot holes in top guide.)

Adjust the distance of the stop according to the desired position.

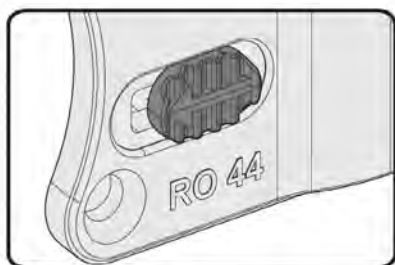


## Door Installation

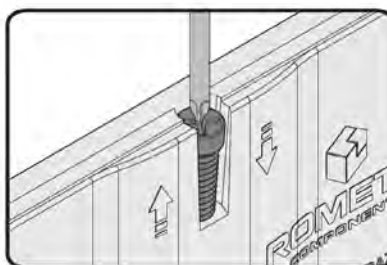


## Floor Carrier Adjustment

Door locking and height adjustment system with up to 10 mm of height adjustment.



Unlock the springs.



Adjust the door height on the undercarriage using a screwdriver.

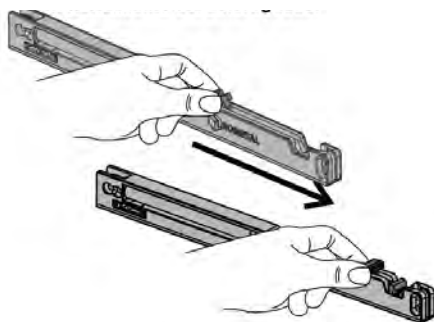
Watch door installation video here: <https://www.youtube.com/watch?v=ZJWFRESIA8c&t=7s>

## Soft Close Mechanism Positioning in Top Guide Rail

### 2 Doors

Front of Opening

### Activate Soft Close Mechanism:

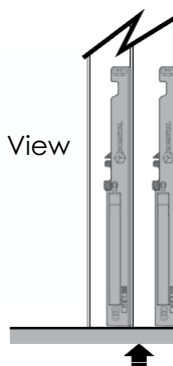


### Position Soft Close Mechanism in Top Guide Rail

Side View

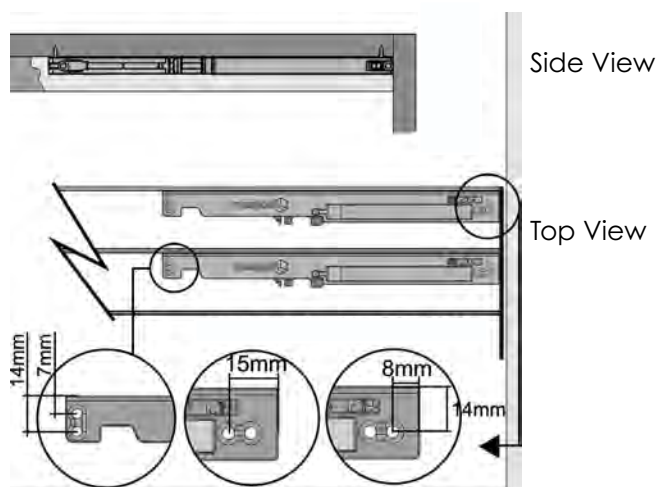


Top View

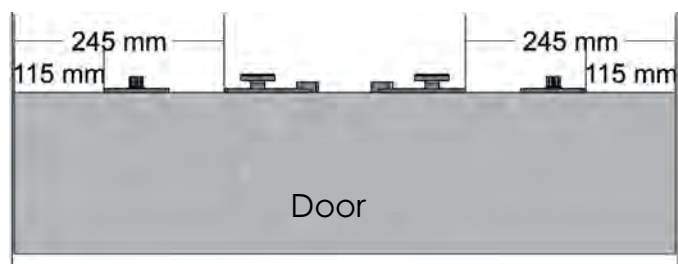


### Attach Soft Close Mechanism to Top Guide Rail

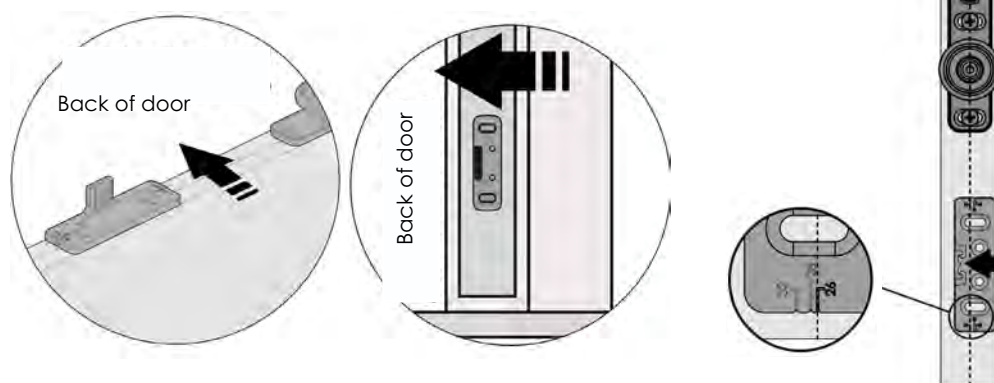
Pre-Drill pilot holes in top guide  
Fasten using 3.5 x 22 CC screws



## Install Activator on Doors:

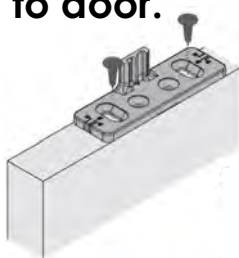


Position activator tab towards the back of door.

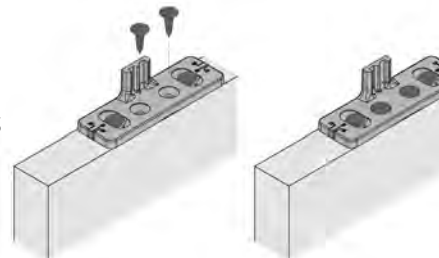


## Attach activator to door.

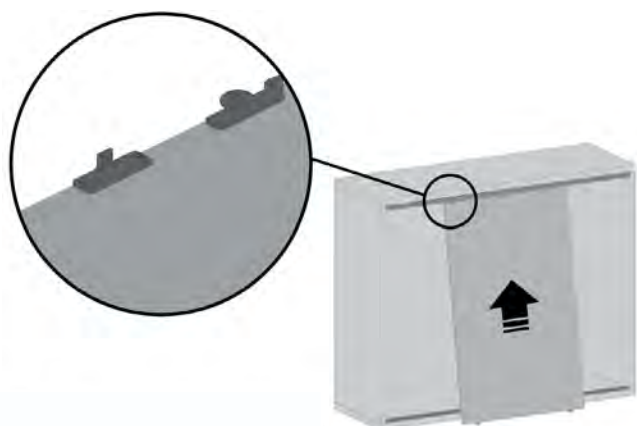
Attach the 2 positioning screws (pre-drill 2mm pilot holes)



Attach the 2 locking screws (pre-drill 2mm pilot holes)



## Install Doors:



Position the top of the door in the top guide.



Align the door and fit the wheels on the bottom track.

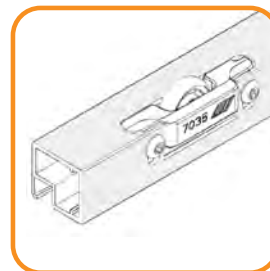
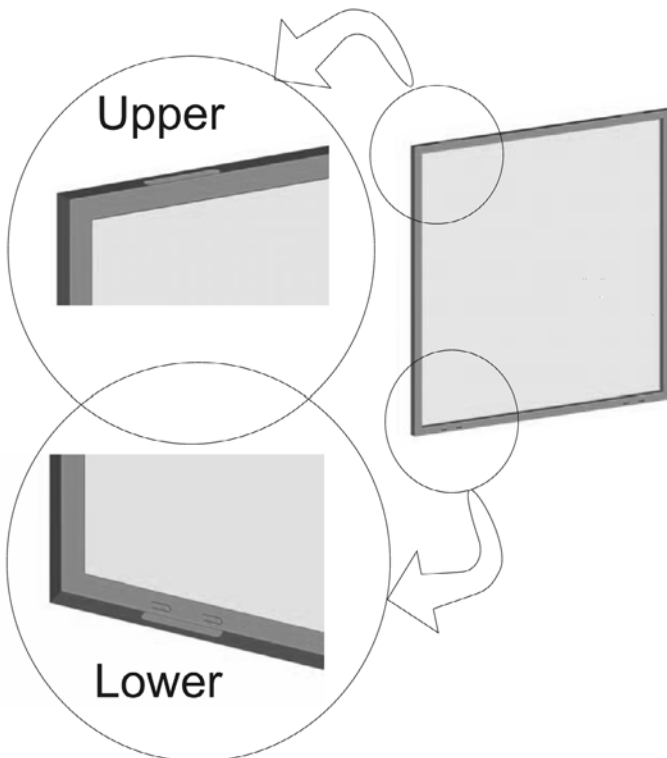
Watch how to install the soft close mechanism here:  
<https://www.youtube.com/watch?v=36zBKJl6Ayo&t=14s>



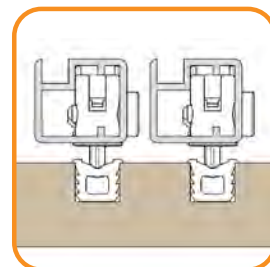
## SH 7035

### Design Guidelines:

- Small Sliding System, top and bottom track
- Multiple doors per system, inset track
- Reference Sliding Systems At A Glance for maximum door dimensions
- Doors weighing up to 33 lbs
- Only recommended for AF001 and AF016 profiles



Small Door Carriers  
(4 per door - preinstalled)



Inset Track  
Up to 140"





AF004 Profile, ORB Finish, Quattro Carbon 3Form

Image courtesy of California Closets. All rights reserved.



AF001 Profile, White Matte Backpainted Glass

*Technical Specifications Are Subject To Change*

**Application Type:** SMALL sliding door applications (cabinets, furniture, closets / wardrobes)

**Recommended Profiles:** AF001 and AF016

**Tracks & Guides:** inset top and bottom track

**Frame height minimum:** 20.5mm (.813")

**Planes of Travel:** multiple doors on multiple planes of travel

## FEATURES AND BENEFITS

Easy adjustment and smooth movement.

Spring loaded carriers and guides prevent the door from jumping the track.

Flush mount carrier installation reduces the space/ gap between the doors.

## DESIGN GUIDELINES

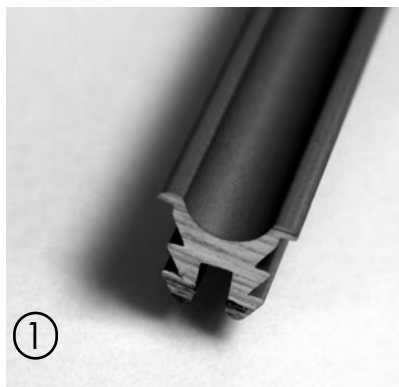
**Door weight max:** 15kg (~33 lbs)

Refer to online door weight calculator to determine door weight: <http://www.element-designs.com/support/>

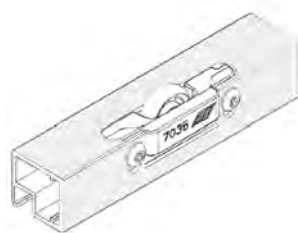
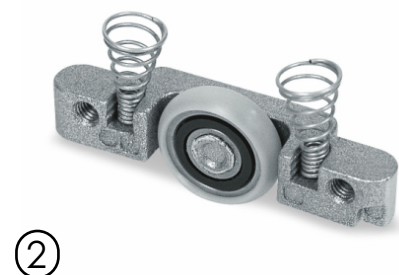
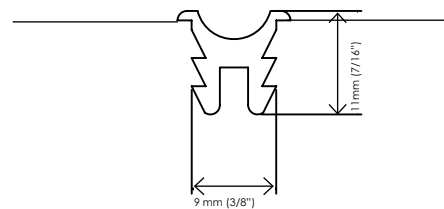
**Recommended Door height max:** 48" (contact Element Designs for taller dimensions)

**NOT RECOMMENDED FOR USE WITH dECOLuxe SOLID ACRYLIC DOORS**

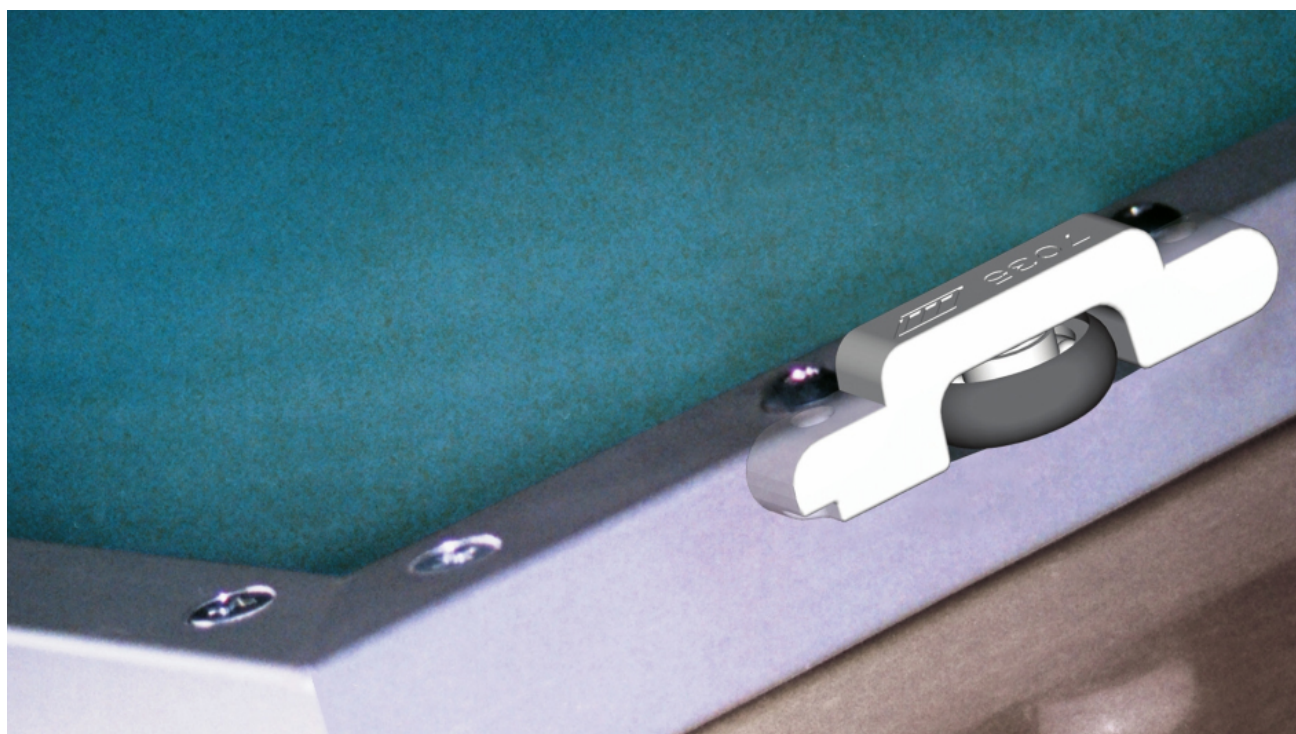




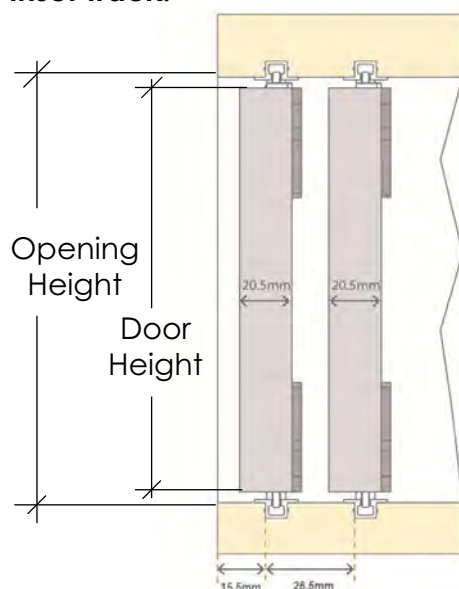
Inset Single Track (7035)



Small Door Carriers  
(pre-installed 4 per door)



### Inset Track:



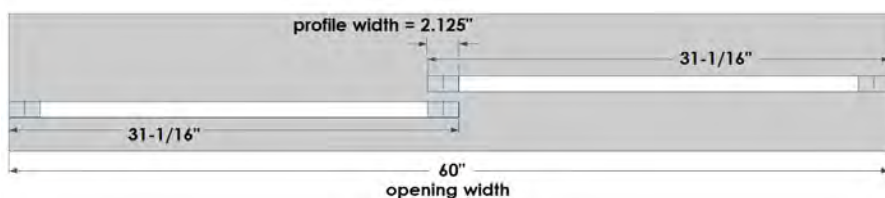
**Door Height** = Opening height - 5mm

### Door Width

Below formulas will create overlap of full profile width, as illustrated,

For 2 doors, 2 planes of travel:

Door Width = (Opening width + profile width) / 2



For 3 doors, 3 planes of travel:

Door Width = (Opening width + (profile width \* 2) / 3



For 4 doors, 4 planes of travel:

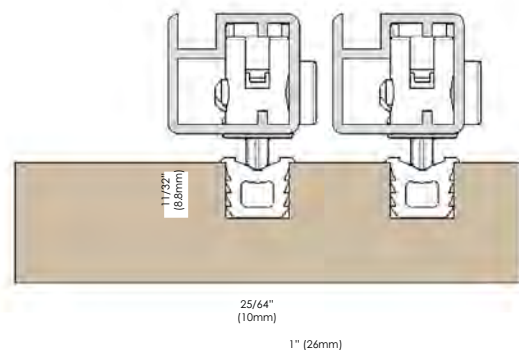
Door Width = [(Opening width / 2) + (profile width) / 2



\*Profile Width: AF001 = 13/16" (20.5mm)  
AF016 = 13/16" (21 mm)

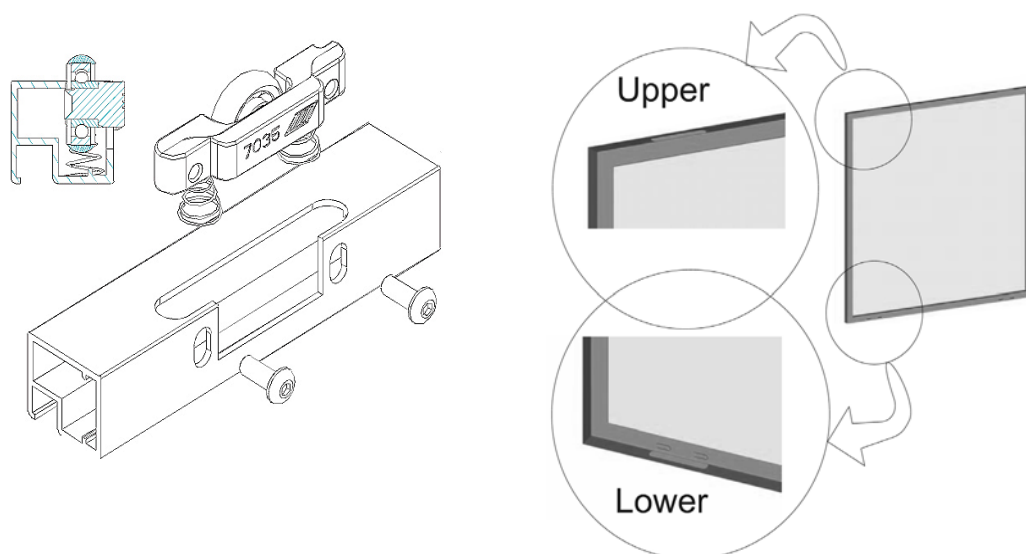


## Track Positioning & Installation



## Hardware Installation

Element Designs will furnish pre-installed hardware in standard location



## Door Installation

Install the back door first.

To install the door in 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.

Repeat the installation with the front door.

Element Designs' aluminum frame cabinet door products are covered by a limited liability warranty from defects in material and workmanship over the functional lifetime of the doors. The warranty includes any defects in the fabricated door size, boring locations, aluminum framing flaws outside of quality standards, and glass imperfections outside of quality standards. Element Designs also warrants its doors from deterioration, discoloring, degrading, or overall changing through the course of the product's lifetime. This warranty does not apply if, in the judgment of Element Designs, the product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained in a manner not conforming to product's care instructions, has been modified in any way, or has been defaced. Repair by anyone other than Element Designs or an approved agent voids this warranty. The maximum liability of Element Designs is the product purchase price.



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