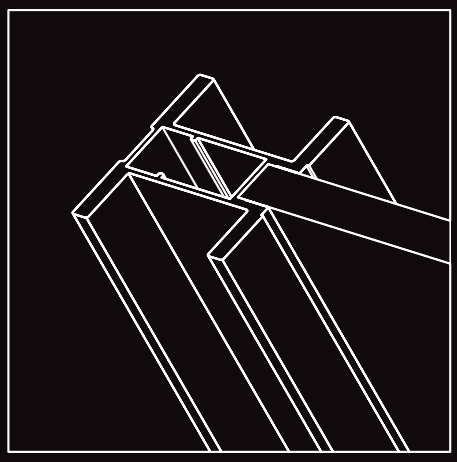
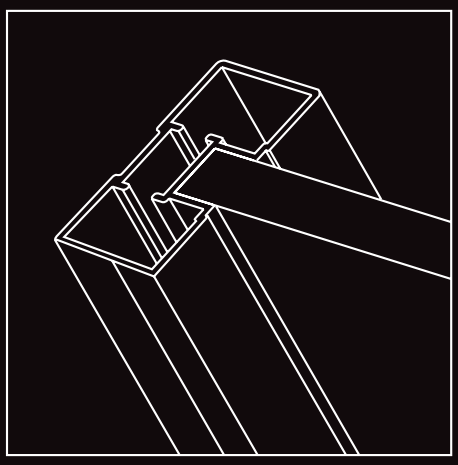
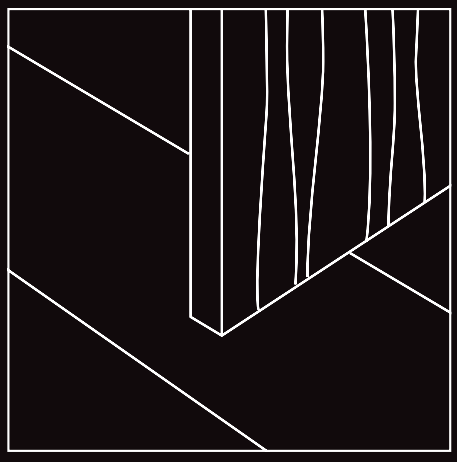
SLIDING DOOR SYSTEM_ AIR

TECHNICAL BOOK







System description

Accessories

raumplus

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

SLIDING DOOR SYSTEM_ AIR

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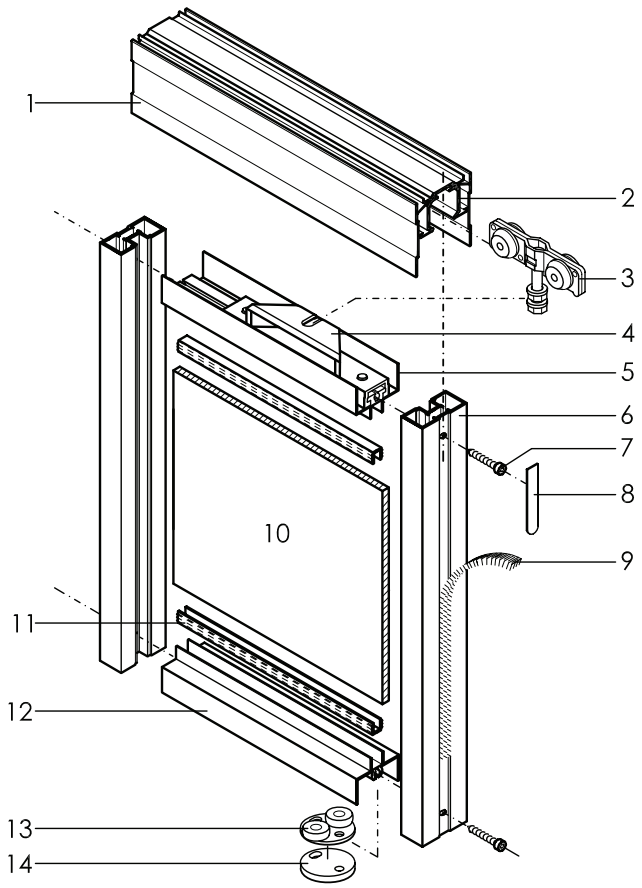


1.1_ Overview

The key features of our made-to-measure system are versatility in customization and quality of our hardware allowing for individual solutions and unparalleled operation. The AIR system is an ideal solution for environments where an uninterrupted floor plane is required. See profiles for specifics.

Doors can be ordered fully assembled with our standard panel materials or as frame kits to accommodate a panel material of your choosing. Assembly of doors with customer's own materials (COM) is available; please contact Raumplus for more information.

1.2_ Fully assembled door

Made-to-measure per specifications with the following design parameters:
_ Maximum height 2743mm [9' - 0"]
_ Maximum width 1219mm [4' - 0"]
_ Maximum weight 60kg [130lbs]
_ Standard finish: Clear anodized aluminum (silver)
_ Top track, Valance, L-bracket shipped 50mm [2"] over-length for trimming on-site

System components (quantity per door):
Top Track
1_ Valance (varies by order)
2_ Top track (varies by order)
Not shown:
AIR Stopper with brake (2)
Door
3_ AIR Roller (2)
4_ Fixation for top track (2)
5_ Top rail (1)
6_ Stile (2)
7_ Frame screw (4)
8_ Plug / cover (4)
9_ Brush gasket (one stile only)
10_ Panel (varies by order)
11_ Panel gasket (all sides of panel)
12_ Bottom rail (1)
13_ Ground plate with roller (1)
14_ Ground plate without roller (1)

1.3_ Frame kit

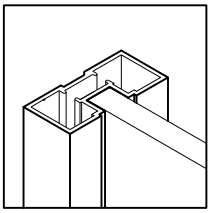
Frame kits are made-to-measure per specifications and ready for assembly using customer's own panel material. In addition to the design parameters listed for fully assembled doors, please consider the following:
_ Minimum panel thickness 4mm [5/32"]
_ Maximum glass thickness 8mm [5/16"]
_ Maximum solid panel thickness 10mm [3/8"]
Appropriate panel gasket to be specified when ordering:
_ 4mm [5/32"]
_ 5mm [3/16"]
_ 6mm [1/4"]
_ 7mm [9/32"]
_ 8mm [5/16"]
*Gasket not required for solid 10mm [3/8"] material

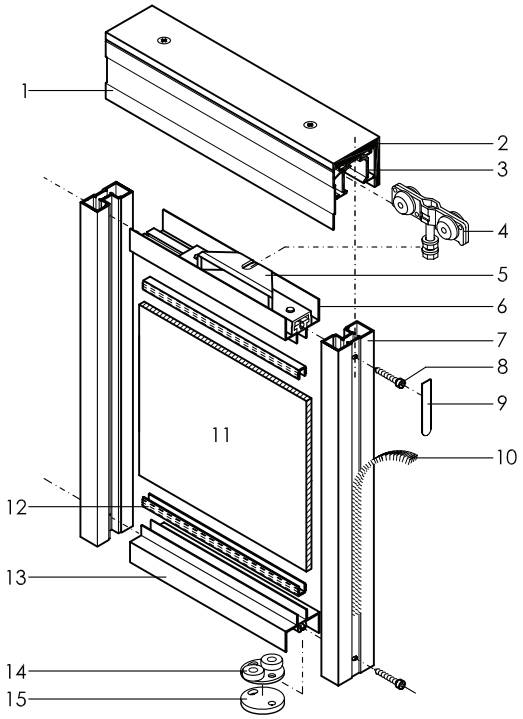
SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

2_ Profiles

2.1_ S1500 Isometric view / wall-mounted

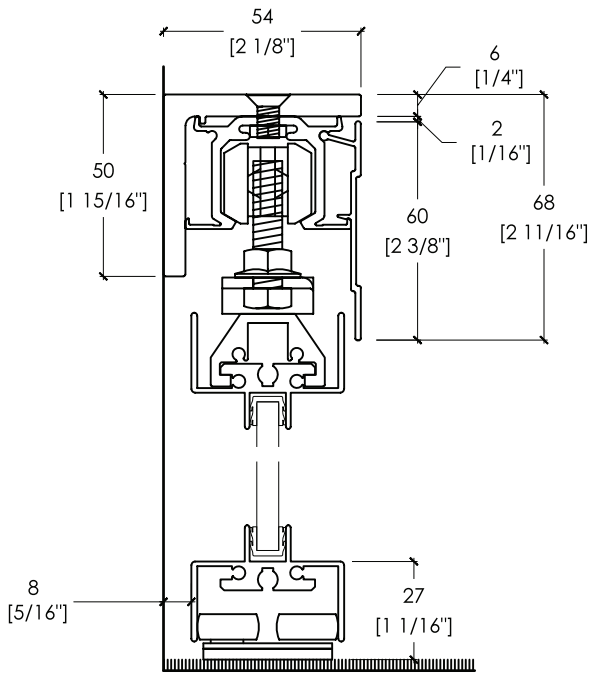




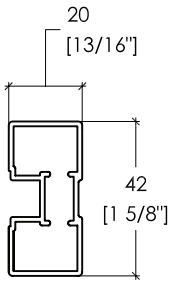
Each sliding door is composed of the following:

Top track
1_ Valance (varies by order)
2_ Continuous L-bracket (varies by order)
3_ Top track (varies by order)
Not shown:
AIR Stopper with brake (2)
Door
4_ AIR roller (2)
5_ Fixation for top track (2)
6_ Top rail (1)
7_ Stile (2)
8_ Frame screw (4)
9_ Plug / cover (4)
10_ Brush gasket (one stile only)
11_ Panel (1)
12_ Panel gasket (all sides of panel)
13_ Bottom rail (1)
14_ Ground plate with roller (1)
15_ Ground plate without roller (1)

S1500 Section and stile detail / wall-mounted



Square



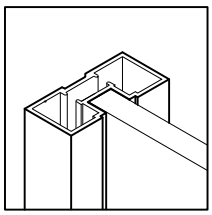
S1500 Stile

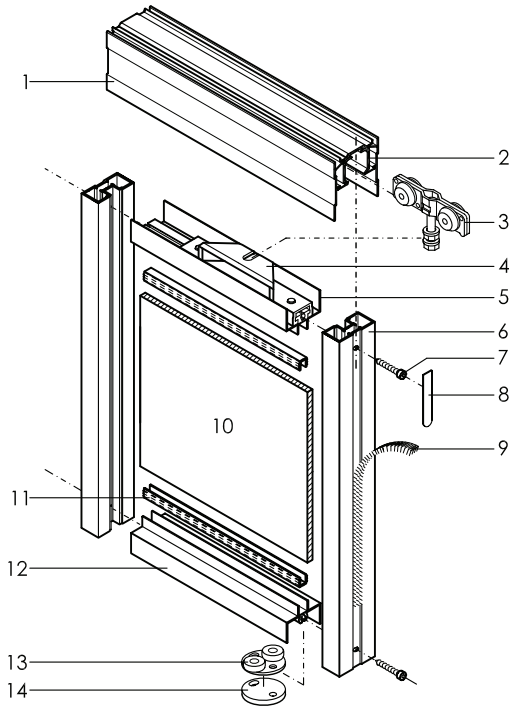
Finish
Standard: Clear anodized aluminum (silver)

Application
Residential / commercial projects

Dimensions
Max size 1219mm x 2743mm [4' x 9']
Max weight 60kg [130lbs]
Panel thickness 4mm [3/16"] to 10mm [3/8"],10mm without gasket
*Door can not travel past ground plate with roller
*Wall-mounted, single and bi-parting doors only

2.2_ S1500 Isometric view / ceiling-mounted

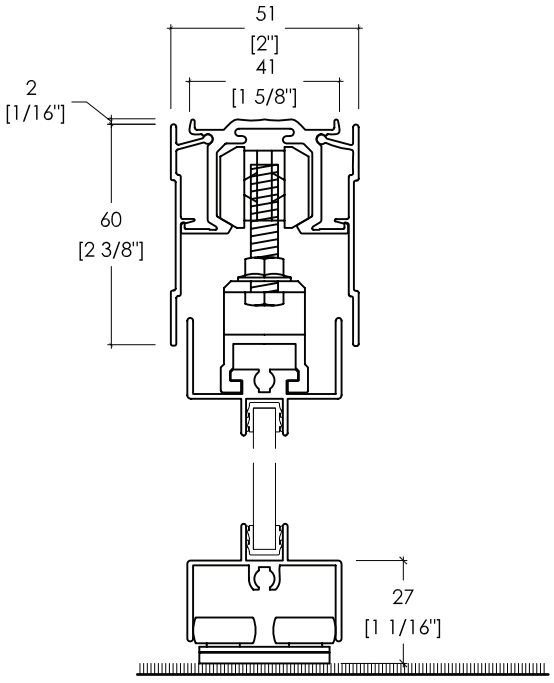




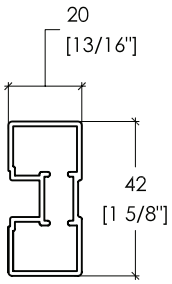
Each sliding door is composed of the following:

Top track
1_ Valance (varies by order)
2_ Top track (varies by order)
Not shown:
AIR Stopper with brake (2)
Door
3_ AIR roller (2)
4_ Fixation for top track (2)
5_ Top rail (1)
6_ Stile (2)
7_ Frame screw (4)
8_ Plug / cover (4)
9_ Brush gasket (one stile only)
10_ Panel (1)
11_ Panel gasket (all sides of panel)
12_ Bottom rail (1)
13_ Ground plate with roller (1)
14_ Ground plate without roller (1)

S1500 Section and stile detail / ceiling-mounted



Square



S1500 Stile

Finish
Standard: Clear anodized aluminum (silver)

Application
Residential / commercial projects

Dimensions
Max size 1219mm x 2743mm [4' x 9']
Max weight 60kg [130lbs]
Panel thickness 4mm [3/16"] to 10mm [3/8"],10mm without gasket
*Door can not travel past ground plate with roller
*Best used as single door or two bi-parting or bi-pass doors. Can be combined with fixed panels. Not recomended for larger spans
*See Diagrams for recessing top track

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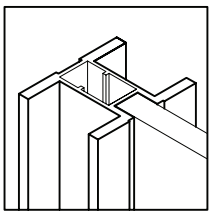
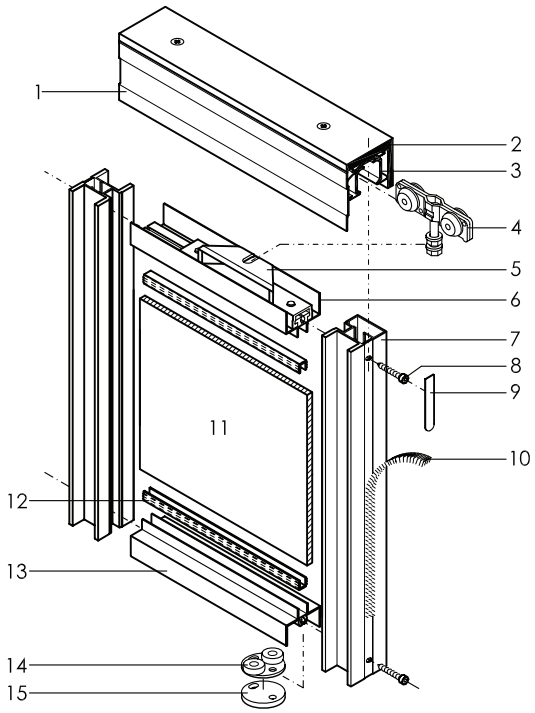
2.3_ S3000 Isometric view / wall-mounted

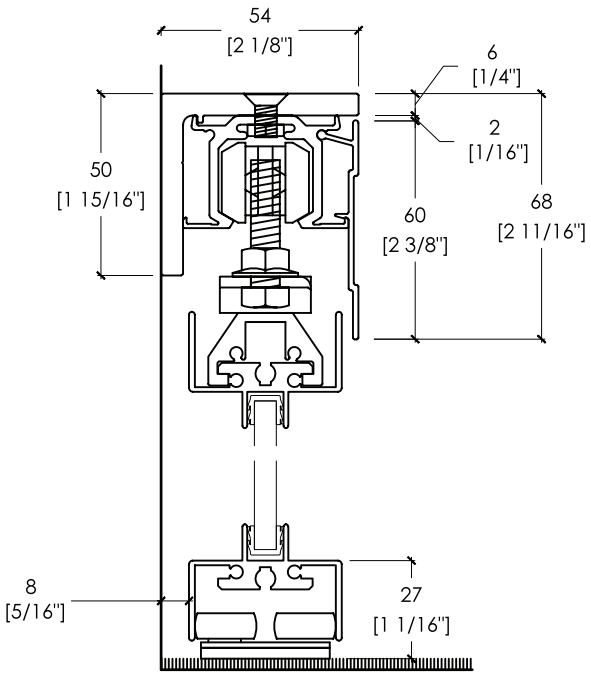




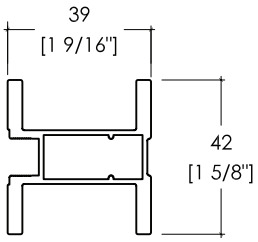
Each wall-mounted sliding door is composed of the following:

Top track
1_ Valance (varies by order)
2_ Continuous L-bracket (varies by order)
3_ Top track (varies by order)
Not shown:
AIR Stopper with brake (2)
Door
4_ AIR roller (2)
5_ Fixation for top track (2)
6_ Top rail (1)
7_ Stile (2)
8_ Frame screw (4)
9_ Plug / cover (4)
10_ Brush gasket (one stile only)
11_ Panel (1)
12_ Panel gasket (all sides of panel)
13_ Bottom rail (1)
14_ Ground plate with roller (1)
15_ Ground plate without roller (1)

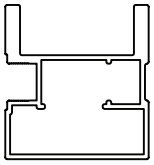
S3000 Section and stile detail / wall-mounted



Symmetrical



Asymmetrical



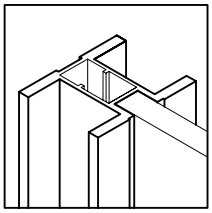
S3000 Stile

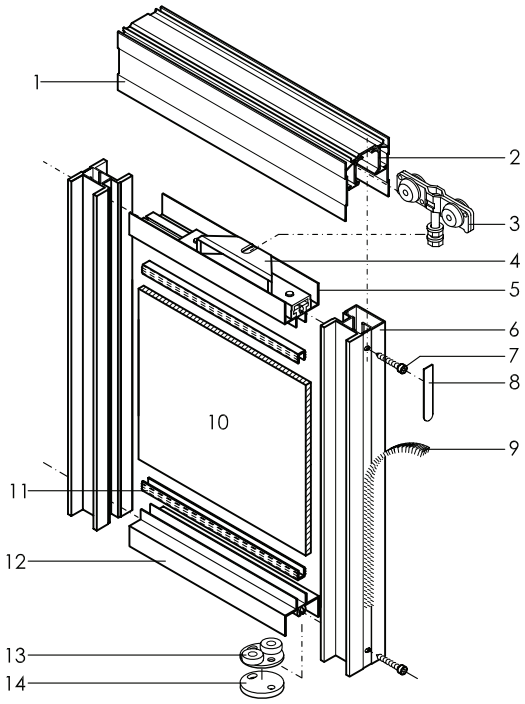
Finish
Standard: Clear anodized aluminum (silver)

Application
Residential / commercial projects

Dimensions
Max size 1219mm x 2743mm [4' x 9']
Max weight 60kg [130lbs]
Panel thickness 4mm [3/16"] to 10mm [3/8"],10mm without gasket
*Door can not travel past ground plate with roller
*Wall-mounted, single and bi-parting doors only

2.4_ S3000 Isometric view / ceiling-mounted

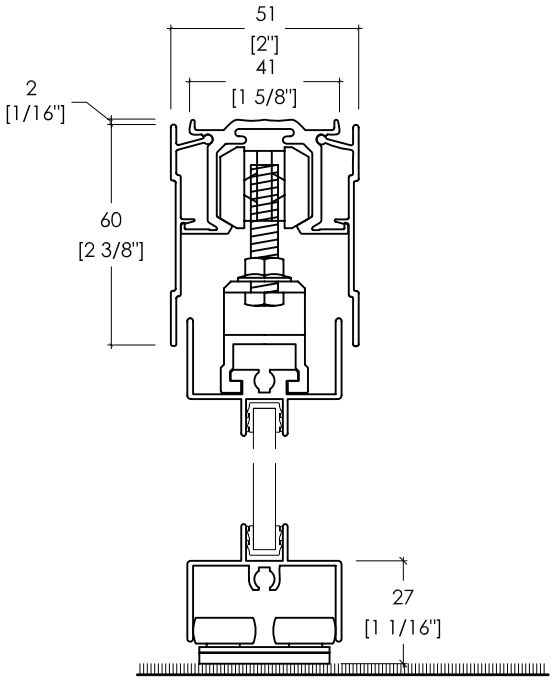




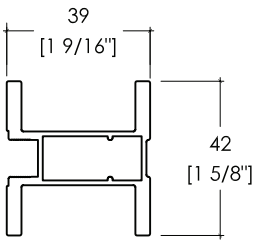
Each wall-mounted sliding door is composed of the following:

Top track
1_ Valance (varies by order)
2_ Top track (varies by order)
Not shown:
AIR Stopper with brake (2)
Door
3_ AIR roller (2)
4_ Fixation for top track (2)
5_ Top rail (1)
6_ Stile (2)
7_ Frame screw (4)
8_ Plug / cover (4)
9_ Brush gasket (one stile only)
10_ Panel (1)
11_ Panel gasket (all sides of panel)
12_ Bottom rail (1)
13_ Ground plate with roller (1)
14_ Ground plate without roller (1)

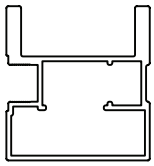
S3000 Section and stile detail / ceiling-mounted



Symmetrical



Asymmetrical



S3000 Stile

Finish
Standard: Clear anodized aluminum (silver)

Application
Residential / commercial projects

Dimensions
Max size 1219mm x 2743mm [4' x 9']
Max weight 60kg [130lbs]
Panel thickness 4mm [3/16"] to 10mm [3/8"], 10mm without gasket
*Door can not travel past ground plate with roller
*Best used as single door or two bi-parting or bi-pass doors. Can be combined with fixed panels. Not recomended for larger spans
*See Diagrams for recessing top track

SYSTEM DESCRIPTION_ AIR

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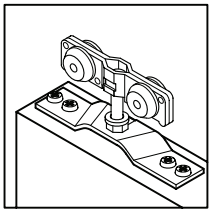
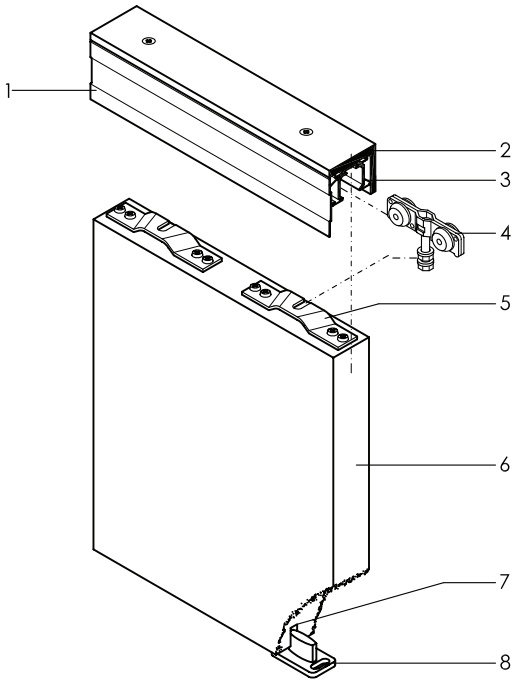
2.5_ AIR Solid door hardware isometric view / wall-mounted

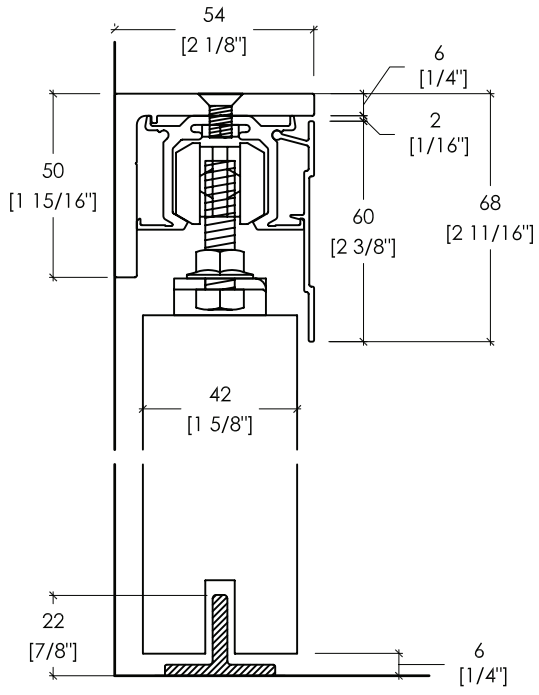




Each wall-mounted sliding door is composed of the following:

Top track
1_ Valance (varies by order)
2_ Continuous L-bracket (varies by order)
3_ Top track (varies by order)
Not shown:
AIR Stopper with brake (2)
Door
4_ AIR roller (2)
5_ AIR bracket (2)
6_ (Material by others)
7_ (Cut out slot for bottom guide)
8_ Solid door bottom guide (1)

AIR Solid door hardware section and stile detail / wall-mounted



AIR Solid door hardware

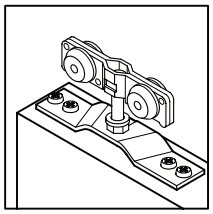
Finish
Standard: Clear anodized aluminum (silver)

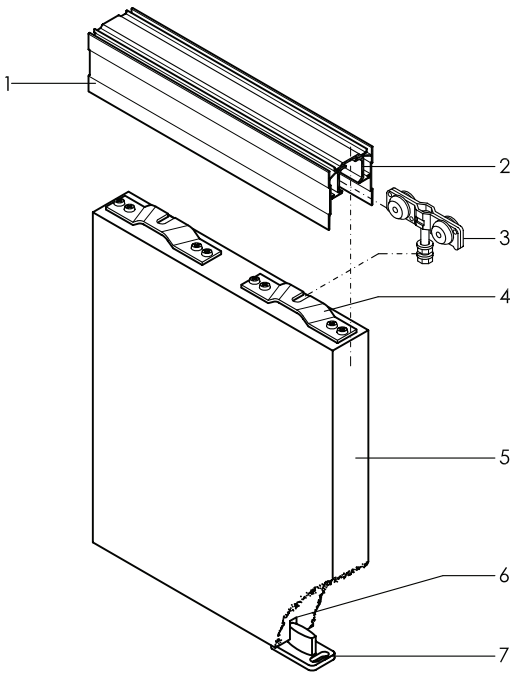
Application
Residential / commercial projects

Dimensions
Max weight 60kg [130lbs]
Panel thickness min. 38mm [1 1/2"] to max. 42mm [1 5/8"]

Included in hardware set (one door)
(2) AIR rollers, (2) AIR brackets, (2) AIR stoppers with brake, (1) Solid door bottom guide
*Top track, Valance and L-bracket sold separately
*Wall-mounted for single and bi-parting doors only

2.6_ AIR Solid door hardware isometric view / ceiling-mounted

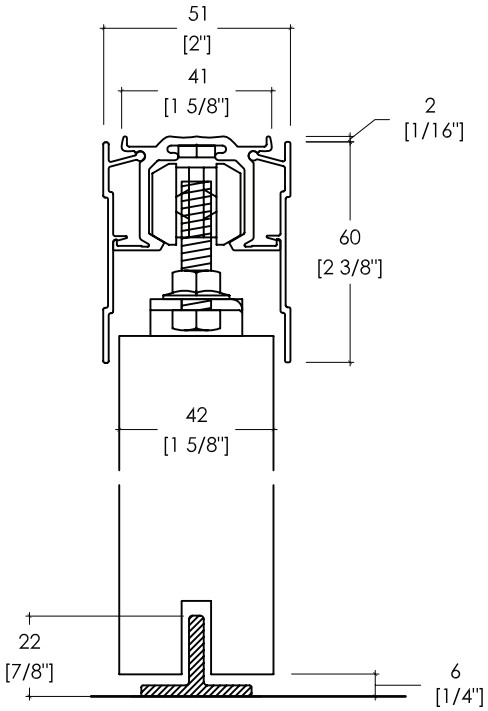




Each sliding door is composed of the following:

Top track
1_ Valance (varies by order)
2_ Top track (varies by order)
Not shown:
AIR Stopper with brake (2)
Door
3_ AIR roller (2)
4_ AIR bracket (2)
5_ (Material by others)
6_ (Cut out slot for bottom guide)
7_ Solid door bottom guide (1)

AIR Solid door hardware section and stile detail / ceiling-mounted



AIR Solid door hardware

Finish
Standard: Clear anodized aluminum (silver)

Application
Residential / commercial projects

Dimensions
Max weight 60kg [130lbs]
Panel thickness min. 38mm [1 1/2"] to max. 42mm [1 5/8"]

Included in hardware set (one door)
(2) AIR rollers, (2) AIR brackets, (2) AIR stoppers with brake, (1) Solid door bottom guide
*Top track, Valance and L-bracket sold separately
*Best used as single, bi-parting and bi-pass doors
*See Diagrams for recessing top track

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

3_ Profile finishes

3.1_ Standard finish _ Clear anodized aluminum (silver)

A factory applied finish, anodizing increases wear resistance and gives the surface a smooth matte aluminum appearance. Color for representation purposes only.

Standard finish Clear anodized (silver)				

4_ Panels

4.1_ MDF

Medium density fiberboard (MDF) is an engineered wood product made of wood fibers, wax and resin. MDF is an ideal surface for painting, application of direct glue wall-covering, or a base for upholstered panels. Maximum size 1219mm x 2438mm [4'-0" x 8'-0"]. Color for representation purposes only.

MDF 10mm [1/4"]				

4.2_ Magnetic marker board

Porcelain enamel coated magnetic marker board is a white dry erase board. Maximum size 1219mm x 2438mm [4'-0" x 8'-0"]. Avaliable as single or double sided. Colors for representation purposes only.

6mm [1/4"]				

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

4.3_ Laminated glass

Laminated glass, often referred to as “safety glass”, is strong and durable and designed to maintain its integrity in the event of breakage.
Maximum size 1219mm x 2743mm [4' x 9']. Colors for representational purposes only. May contain glass manufacturer safety mark

Clear 6mm [1/4"]	Diffused white 6mm [1/4"]	Polar white 6mm [1/4"]		

4.4_ Tempered glass

Tempered glass is manufactured to exact size and is stronger than regular glass. If broken the glass shatters into small fragments instead of sharp shards.
Maximum size 1219mm x 2743mm [4'-0" x 9'-0"]. Colors for representation purposes only. Manufactures glass bug in corner of glass

Clear 6mm [1/4"]	Satin etched 6mm [1/4"]			

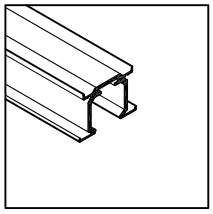
4.5_ Mirrored glass

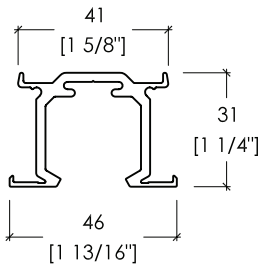
Silver mirror backed with a safety film. Single-sided mirror only, best used for closets. Maximum size 1219mm x 2438mm [4'-0" x 8'-0"].
Colors for representation purposes only.

Mirror 5mm [3/16"]				

5_ Top tracks

5.1_ AIR Top track





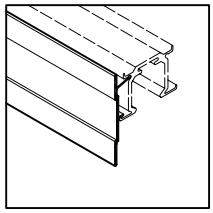
14.55.020

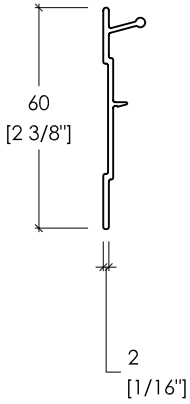
AIR Top track

Finish
Standard

Description
Ceiling- or wall-mounted (add continuous L-bracket and wall-mounted end caps)
Max length 4877mm [16'-0"]
Note: If recessing top track please allow and additional 5" width in pocket (in additon to the top track), see diagram. If valance can not be removed, door can not be adjusted

5.2_ AIR Valance





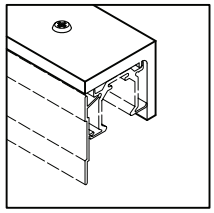
14.50.020

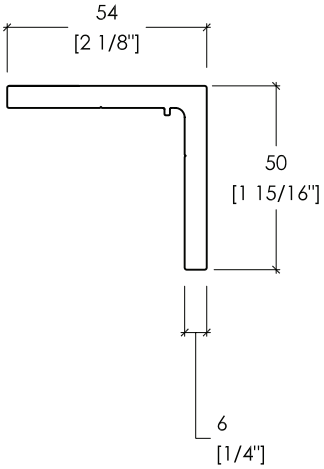
AIR Valance

Finish
Standard

Description
Use on one or both sides of track
Max length 4877mm [16'-0"]

5.3_ AIR Continuous L-bracket





14.54.020

AIR Continuous L-bracket

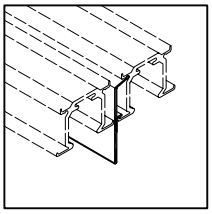
Finish
Standard

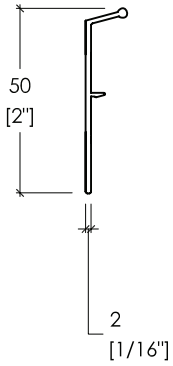
Description
Wall-mounted bracket for AIR Top track
Prepared for assembly, includes track-to-bracket fasteners
Max length 4877mm [16'-0"]
Wall-mount for single doors only

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

5.4_ AIR Middle valance





14.53.020

AIR Middle valance

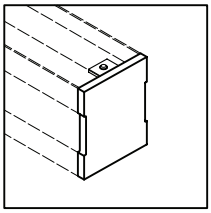
Finish
Standard

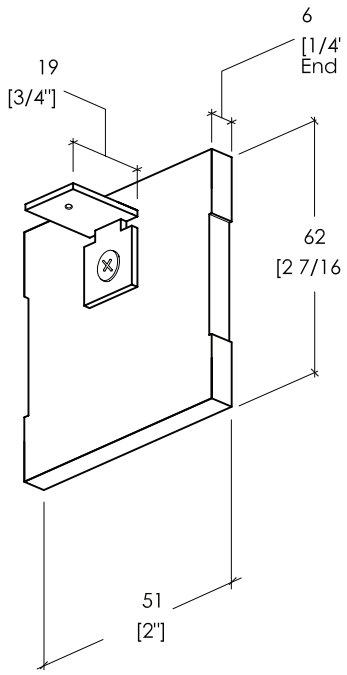
Description
Optional: Use between AIR tracks
Max length 4877mm [16'-0"]

raumplus

6_ Accessories

6.1_ AIR End cap for top track / ceiling-mounted





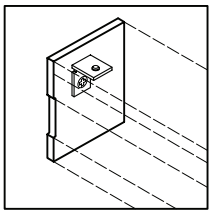
ACC-AIR-ECB

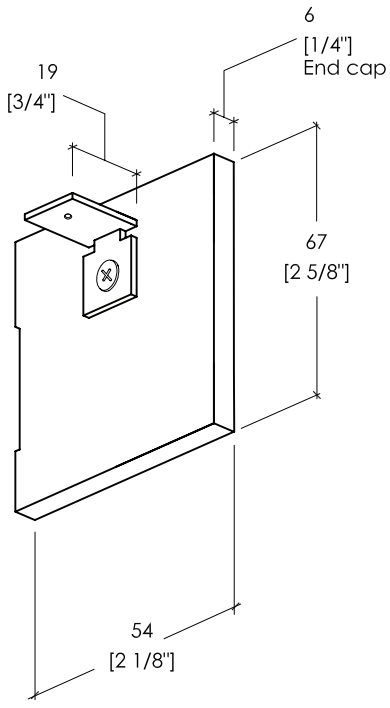
AIR End cap for single top track / ceiling-mounted

Finish
Standard

Description
For ceiling-mounted top tracks
Includes (1) single end cap
(1) bracket, (1) bracket-to-end cap screw, and (1) set screw

6.2_ AIR End cap for top track / wall-mounted, left





ACC-AIR-ECL

AIR End cap for top track / wall-mounted, left

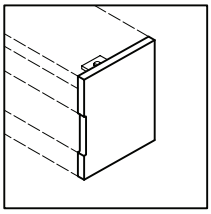
Finish
Standard

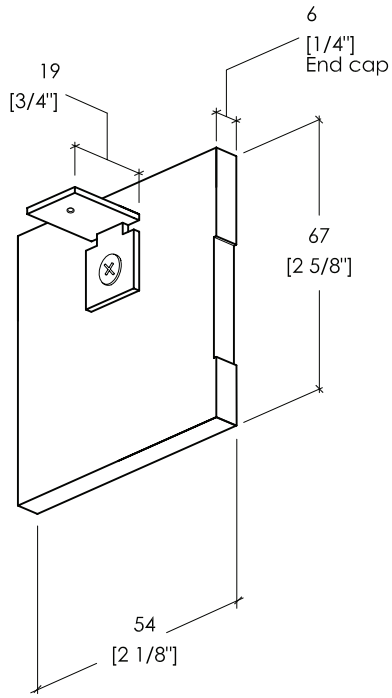
Description
For wall-mounted top tracks
Includes (1) single end cap
(1) bracket, (1) bracket-to-end cap screw, and (1) set screw

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

6.3_ AIR End cap for top track / wall-mounted, right





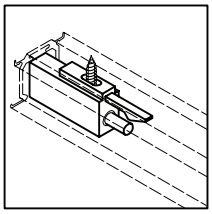
ACC-AIR-ECR

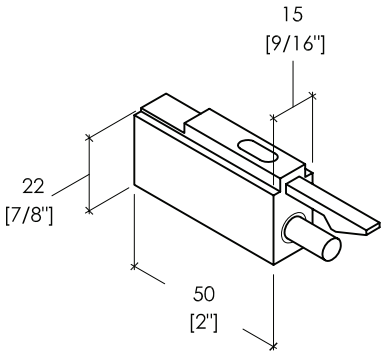
AIR End cap for top track / wall-mounted, right

Finish
Standard

Description
For wall-mounted top tracks
Includes (1) single end cap, (1) bracket, (1) bracket-to-end cap screw, and (1) set screw

6.4_ AIR Stopper with brake





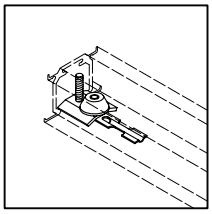
10.05.017

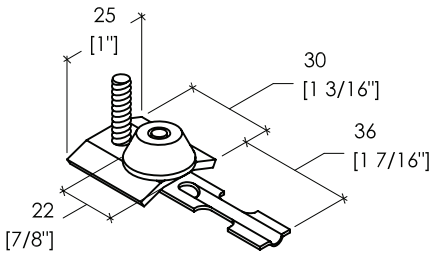
AIR Stopper with brake

Finish
Black plastic

Description
Used for stopping door and holding in the closed position
Includes 1 mounting screw

6.5_ AIR Stopper with positioner





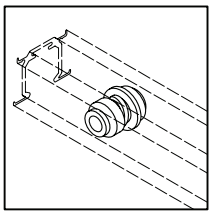
10.05.015

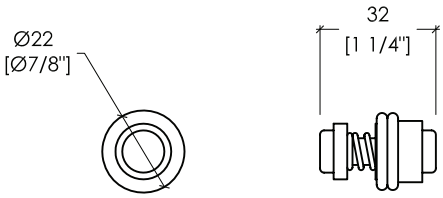
AIR Stopper with positioner

Finish
Steel and black rubber

Description
May be used in place of AIR Stopper with brake
*Standard stopper for Healthcare

6.6_ AIR Brake





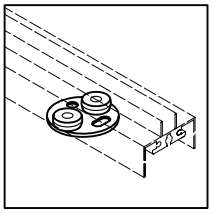
10.05.030

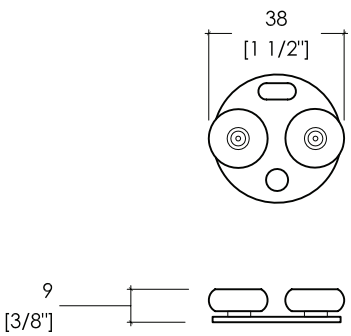
AIR Brake

Finish
Black plastic

Description
Used between top rollers to slow doors over 41 kilo [90 lbs]
*Standard brake for Healthcare

6.7_ AIR Ground plate with roller





10.06.030

AIR Ground plate with roller

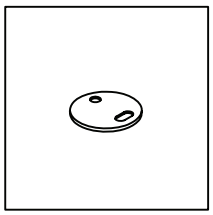
Finish
Steel and nylon

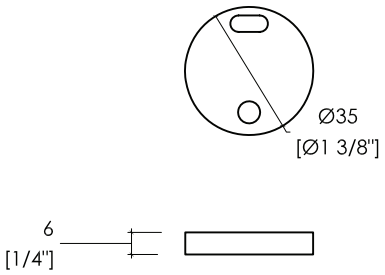
Description
Concealed under bottom rail, keeps door in line
Floor fasteners not included
* Door can not travel past ground plate with roller
* See 7_ Diagram Alignment

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

6.8_ AIR Ground plate without roller





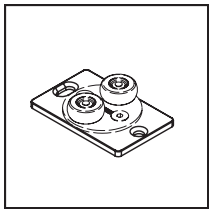
10.05.025

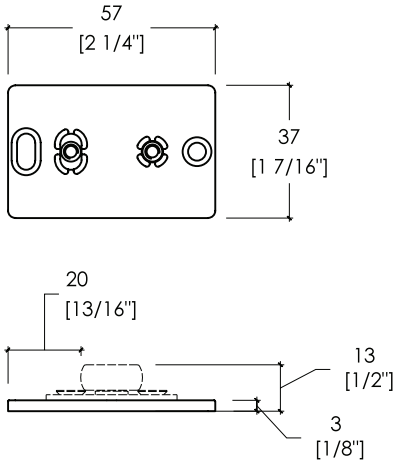
AIR Ground plate without roller

Finish
Steel

Description
Used as shim beneath AIR Ground plate with roller

6.9_ AIR Break-away guide





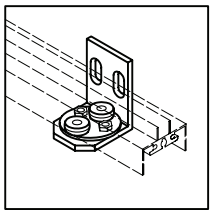
10.06.032

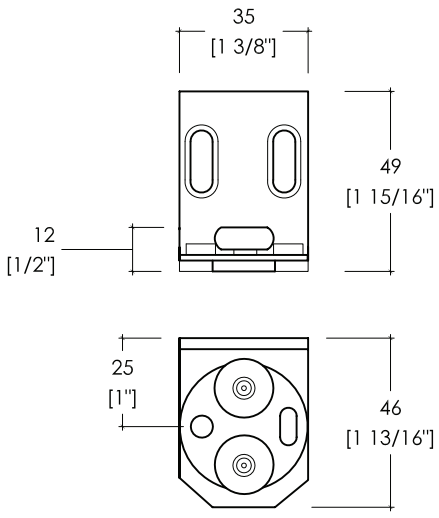
AIR Break-away guide

Finish
Grey plastic

Description
Break-away shim used beneath AIR ground plate with roller.
OSPHD approved
*Door can not travel past ground plate with roller

6.10_ AIR Break-away guide





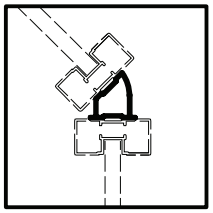
10.05.022

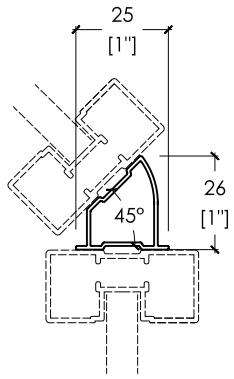
AIR Wall-mounted ground plate with roller

Finish
Aluminum

Description
Used when ground plate may not be attached to floor
*Door can not travel past ground plate with roller
* See 7_ Diagram Alignment

6.11_ 45° Corner profile





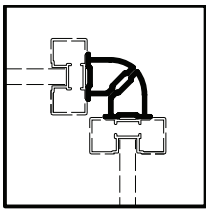
14.07.020

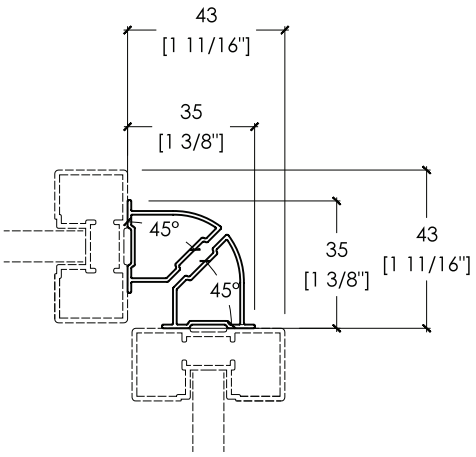
AIR Synchro

Finish
Standard

Description
Provided with adhesive backing

6.12_ 90° Corner profile



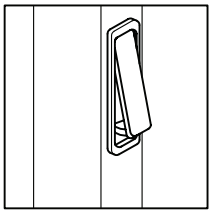


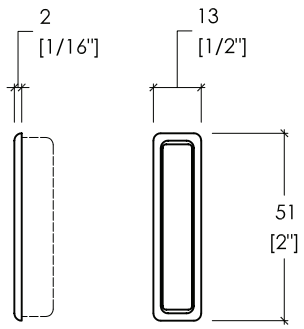
14.07.020

Finish
Standard

Description
Provided with adhesive backing

6.13_ Pocket pull





10.01.047

90° Corner profile

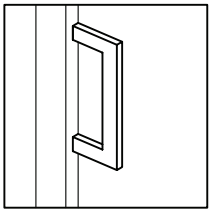
Finish
Standard

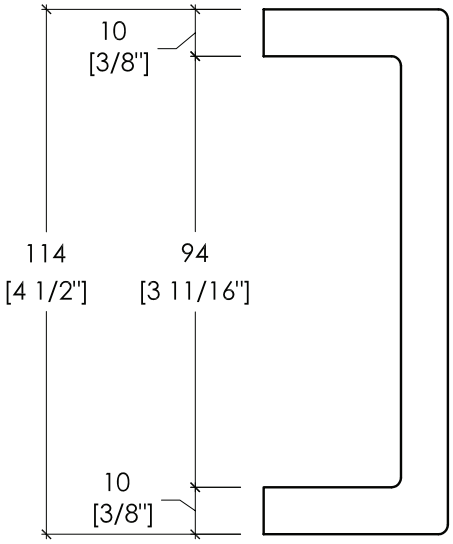
Description
Provided with adhesive backing

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

6.14_ Half rectangle applied handle





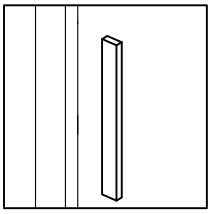
10.01.093

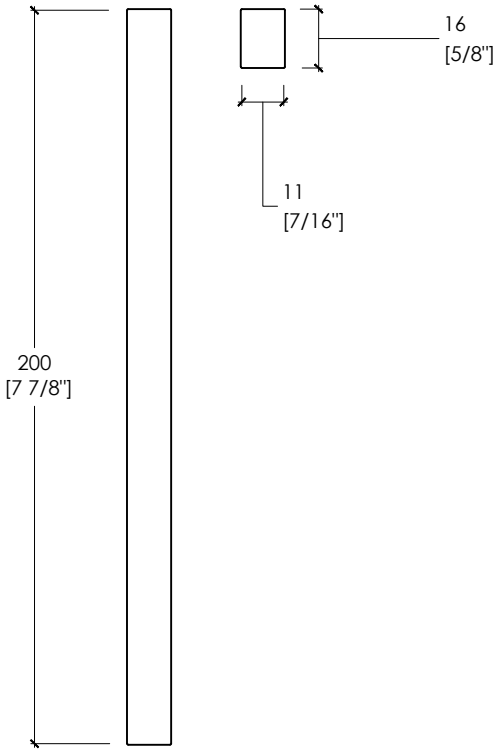
Half rectangle applied handle

Finish
Standard

Description
Provided with adhesive backing

6.15_ Rectangle handle





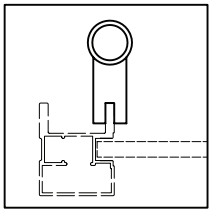
10.01.047

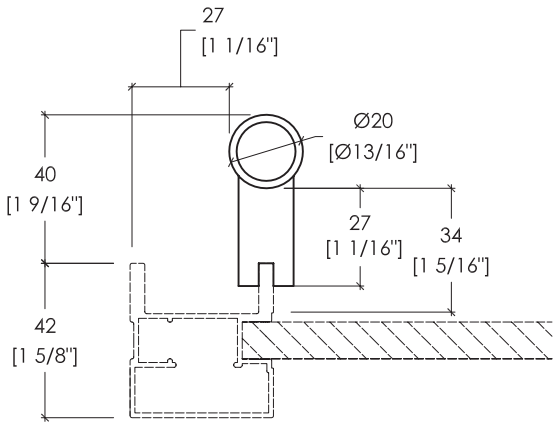
Rectangle handle

Finish
Standard

Description
Provided with adhesive backing

6.16_ Rod handle for S3000





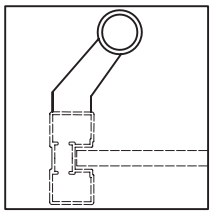
ACC-RDH-3000

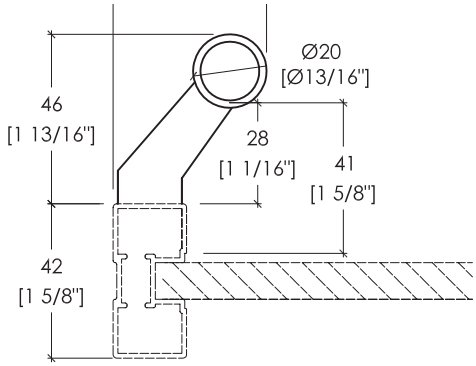
Rod handle for S3000

Finish
Standard

Description
Adds vertical rod handle to S3000
*Includes plastic silver end caps
*Avaliable in 305mm [1'-0"]
*Can only be used with S3000
See diagrams for clearance requirements.
*Avaliable in 305mm [1'-0"] intrements

6.17_ ADA handle for S3000





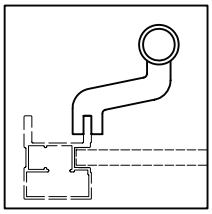
ACC-RDH-1500SQ

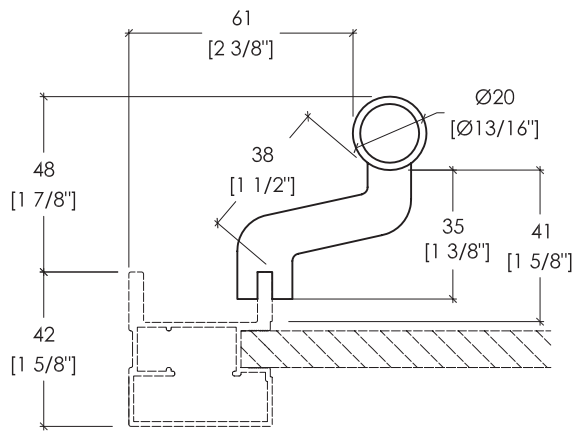
Rod handle for S1500 Square

Finish
Standard

Description
Adds vertical rod handle to S1500 Square
*Includes plastic silver end caps
*Avaliable in 305mm [1'-0"]
*Can only be used with S1500
See diagrams for clearance requirements.
*Avaliable in 305mm [1'-0"] intrements

6.22_ Rod handle for S1500 square





ACC-RDH-ADA

ADA handle for S3000

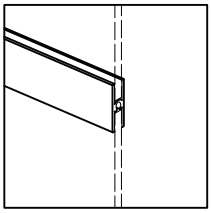
Finish
Standard

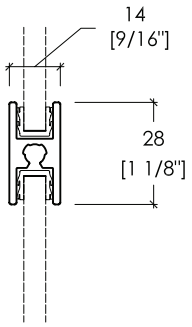
Description
ADA bracket with rod handle complies with ADA requirements for sliding door handles, verify with local jurisdictions
*Includes plastic silver end caps
*Can only be used with S3000 profile. See diagrams for clearance requirements.
*Avaliable in 305mm [1'-0"] intrements

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

6.18_ True dividing rail





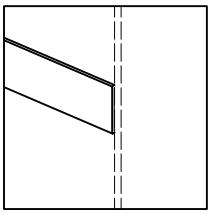
13.22.020

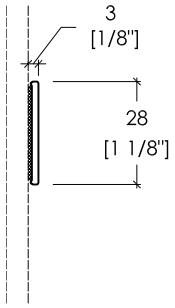
True dividing rail

Finish
Standard

Description
Use to partition different materials horizontally or *vertically within a door
*Consult Raumplus for vertical partitioning, cannot combine horizontal and vertical true dividers within one door
Note: Frame kits not drilled for dividers

6.19_ Single-sided applied dividing rai2





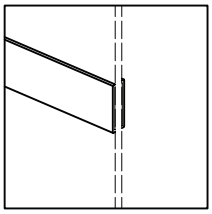
13.33.020

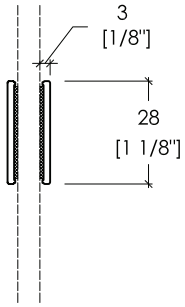
Single-sided applied dividing rail

Finish
Standard

Description
Provided with adhesive backing
Applied divider can be used horizontally or vertically

6.20_ Double-sided applied dividing rail





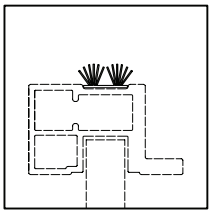
13.33.020

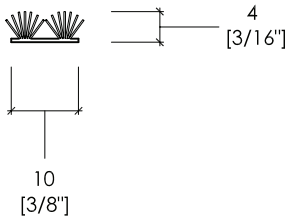
Double-sided applied dividing rail

Finish
Standard

Description
Provided with adhesive backing
Applied divider can be used horizontally or vertically

6.21_ Brush gasket





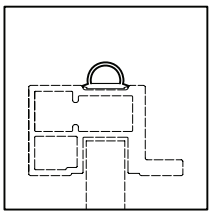
10.07.023 (2.6m)
10.07.024 (3m)

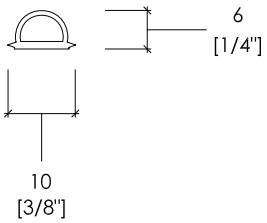
Brush gasket

Finish
Grey

Description
Used to cushion against wall, door or post
One side standard, per door
Includes two clips
*2.6m [8'-6 3/8"]
3m [9'-10 1/8"]

6.22_ Rubber gasket





10.26.070

Rubber gasket

Finish
Grey

Description
Used to cushion against wall, door or post
Specify if substituting for standard brush gasket
*Cut to order

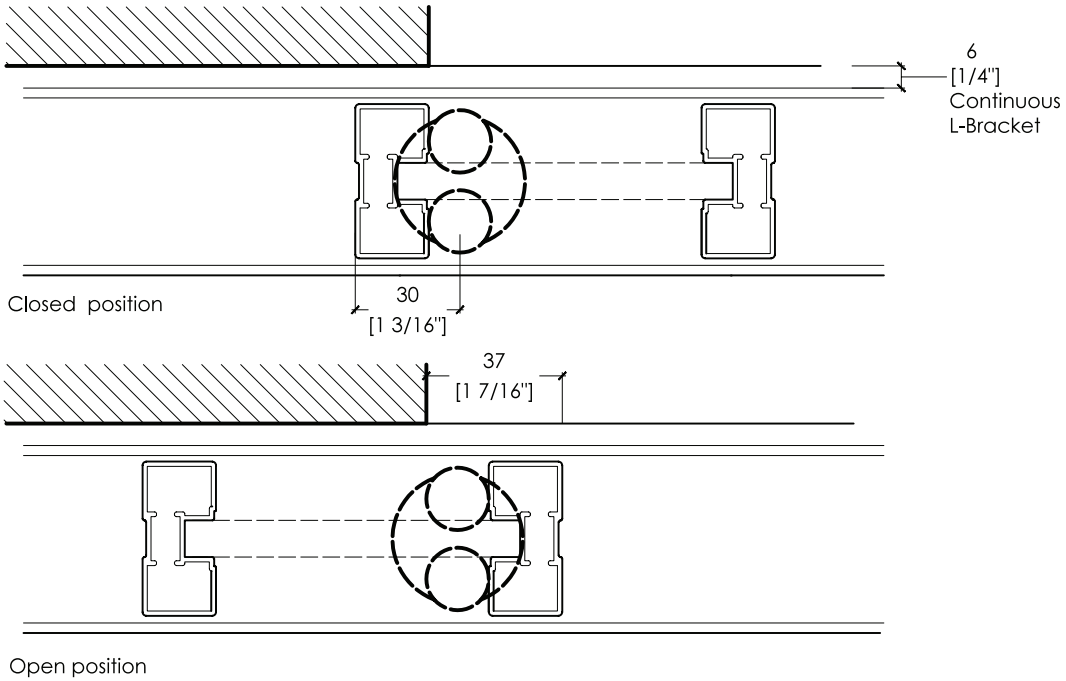
SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

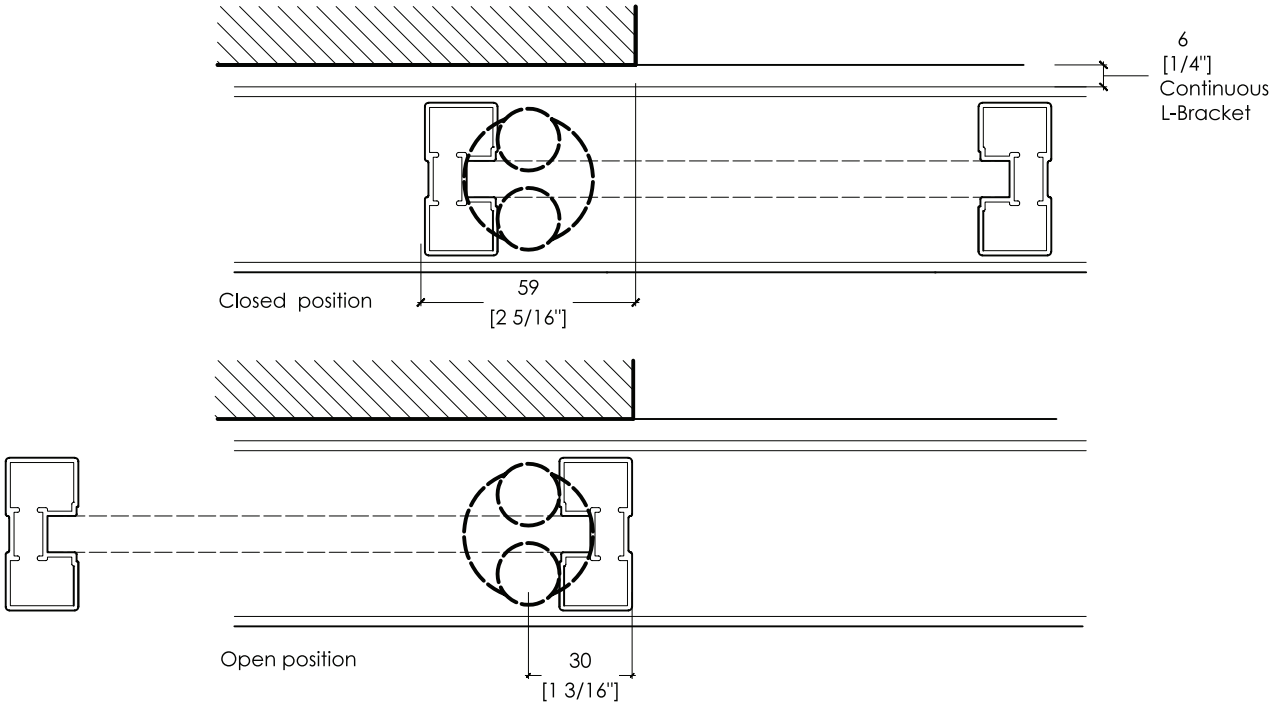
7_ Diagrams_Alignment

7.1_ S1500 Alignment options / wall-mounted, typical and oversized overlap

Typical overlap

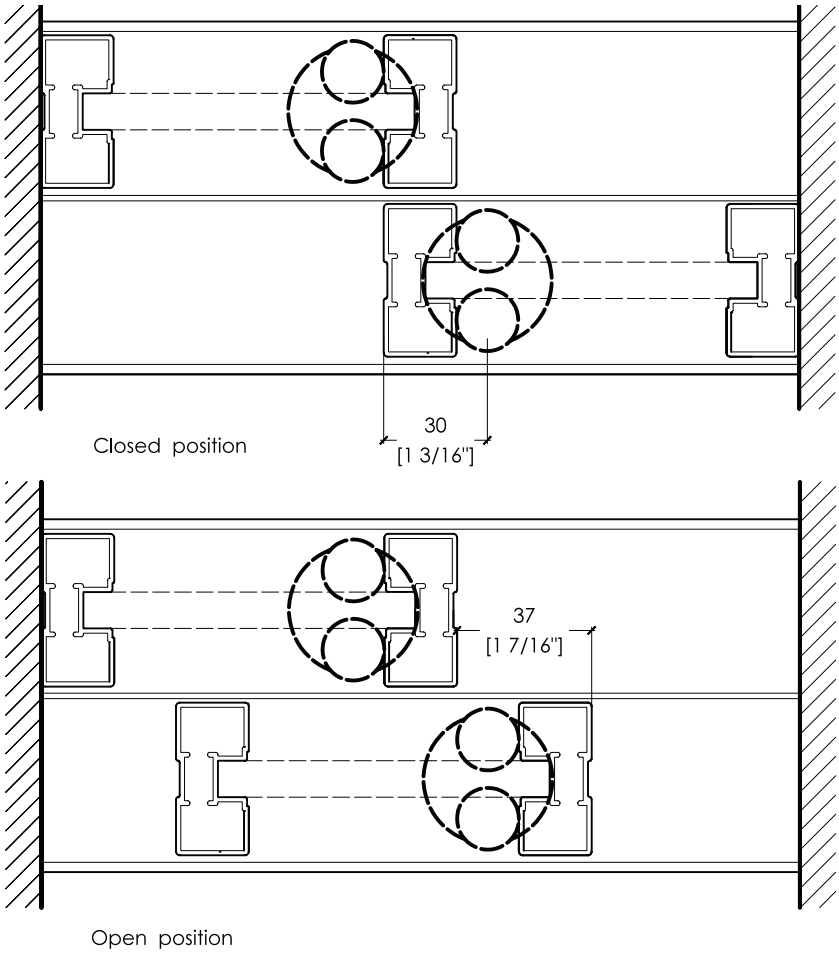


Oversized overlap



NOTE: Door can not travel past floor guide. To clear opening you must oversize the door.

7.2_ S1500 Alignment / offset bypass



7.3_ S1500 Alignment notes

Each AIR door is held in vertical plane at three points: the two top rollers and the ground plate with roller (floor guide).

For wall-mounted doors, with a typical overlap (one stile each side of opening) the door will project into the opening by 37mm [1 7/16"] when in the open position. To fully clear the opening, a door must be oversized with an overlap on one side at a minimum of 59mm [2 5/16"]. For a symmetrical overlap the amount of the overlap must be doubled. These rules apply to single ceiling- or wall-mounted doors.

If installing as a pocket door with pre-shipped tracks please specify that the rollers ship with the tracks.
The rollers must be in the tracks before the tracks are installed.

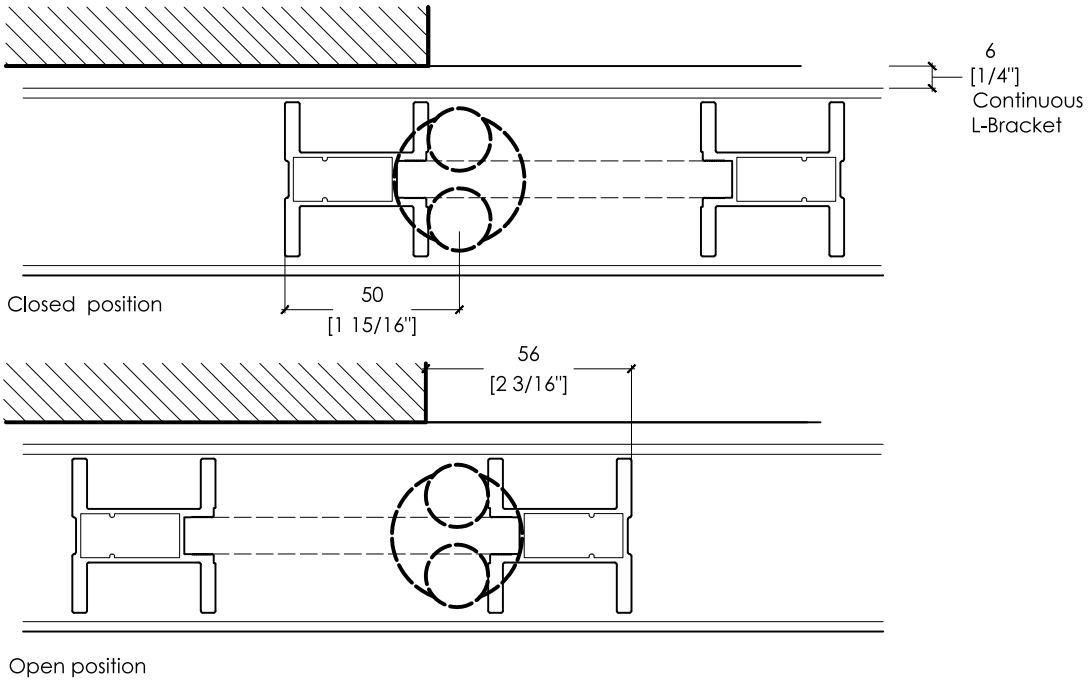
* Door can not travel past floor guide. To clear opening you must oversize the door.

SYSTEM DESCRIPTION_ AIR

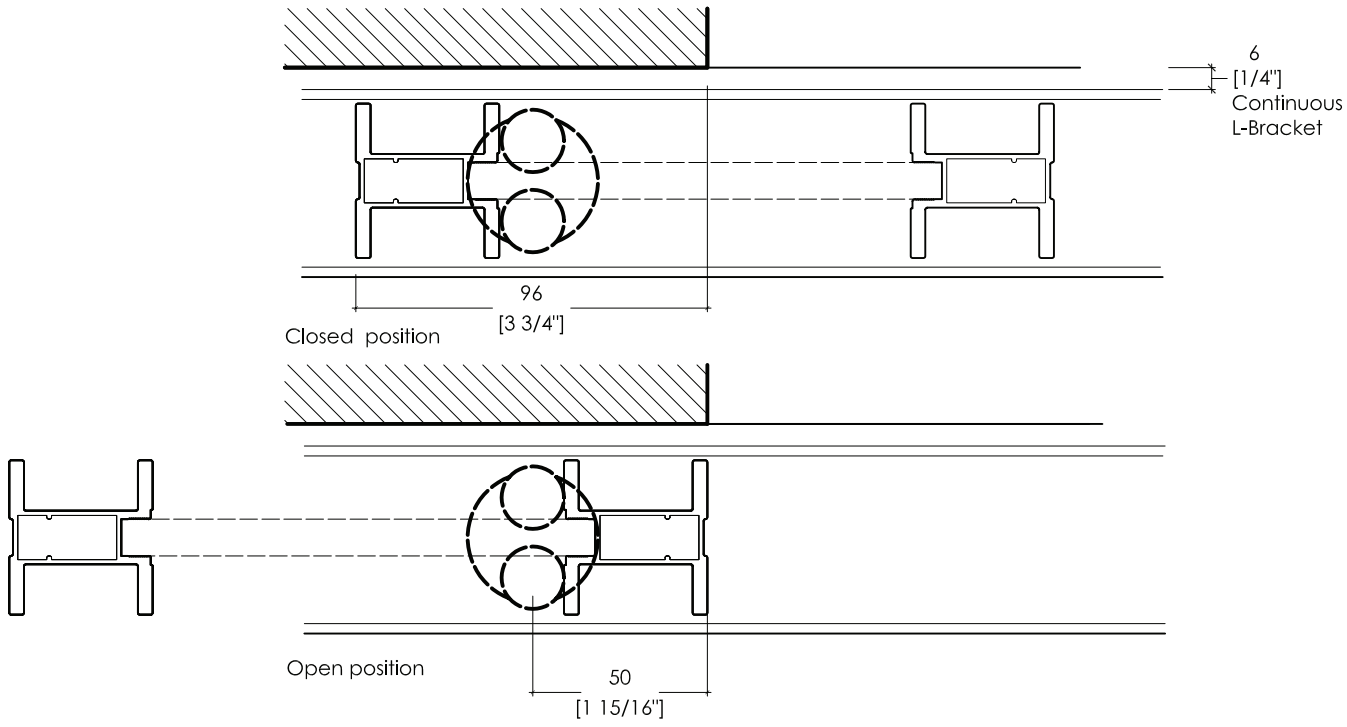
SLIDING DOOR SYSTEM

7.4_ S3000 Alignment options / wall-mounted, typical and oversized overlap

Typical overlap

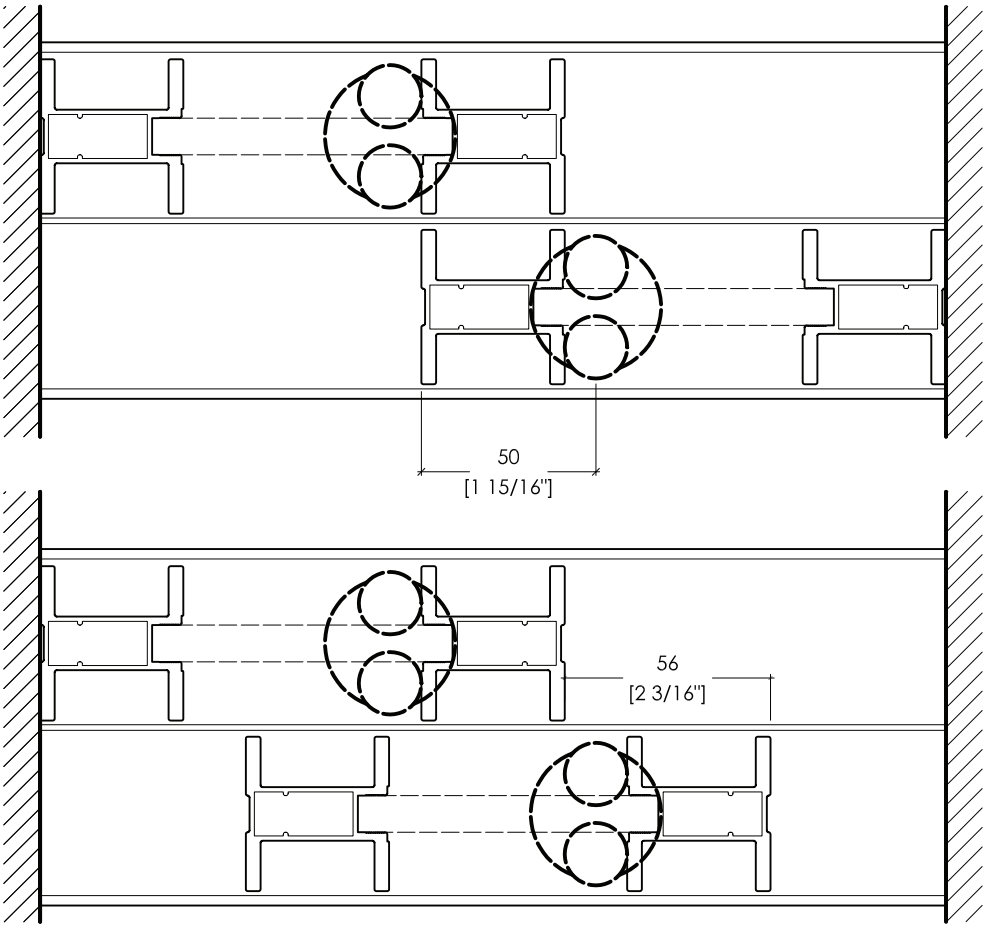


Oversized overlap



NOTE: Door can not travel past floor guide. To clear opening you must oversize the door.

7.5_ S3000 Alignment / offset bypass



7.6_ S3000 Alignment notes

Each AIR door is held in vertical plane at three points: the two top rollers and the ground plate with roller (floor guide).

For wall-mounted doors, with a typical overlap (one stile each side of opening) the door will project into the opening by 37mm [2 7/16"] when in the open position. To fully clear the opening, a door must be oversized with an overlap on one side at a minimum of 96mm [3 3/4"]. For a symmetrical overlap the amount of the overlap must be doubled. These rules apply to single ceiling- or wall-mounted doors.

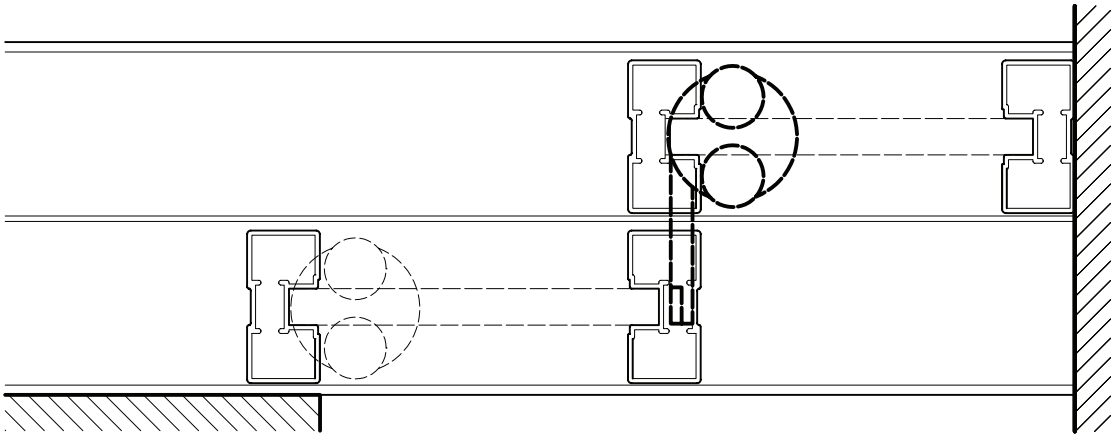
If installing as a pocket door with pre-shipped tracks please specify that the rollers ship with the tracks.
The rollers must be in the tracks before the tracks are installed.

SYSTEM DESCRIPTION_ AIR

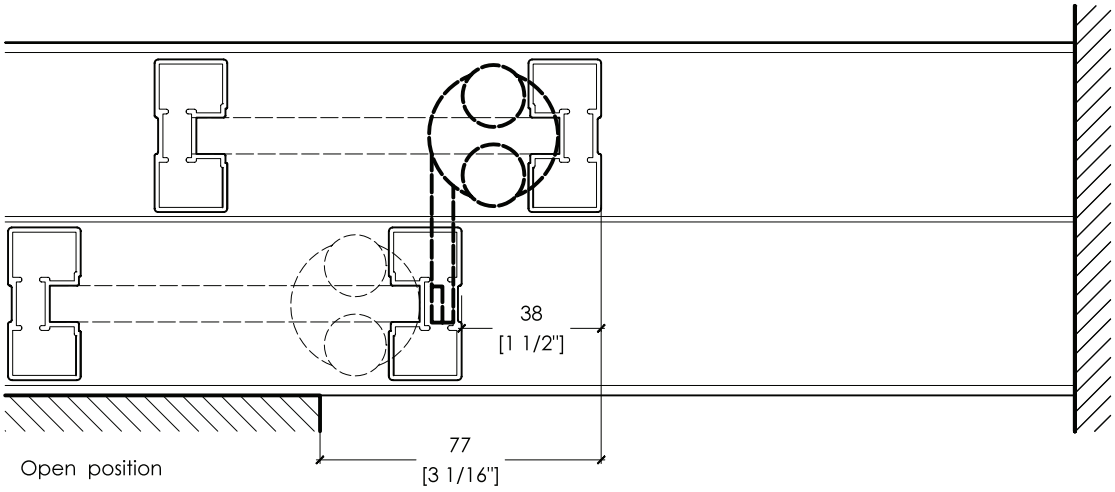
SLIDING DOOR SYSTEM

8_ Diagrams_Ganging

8.1_ S1500 Ganging / double, left

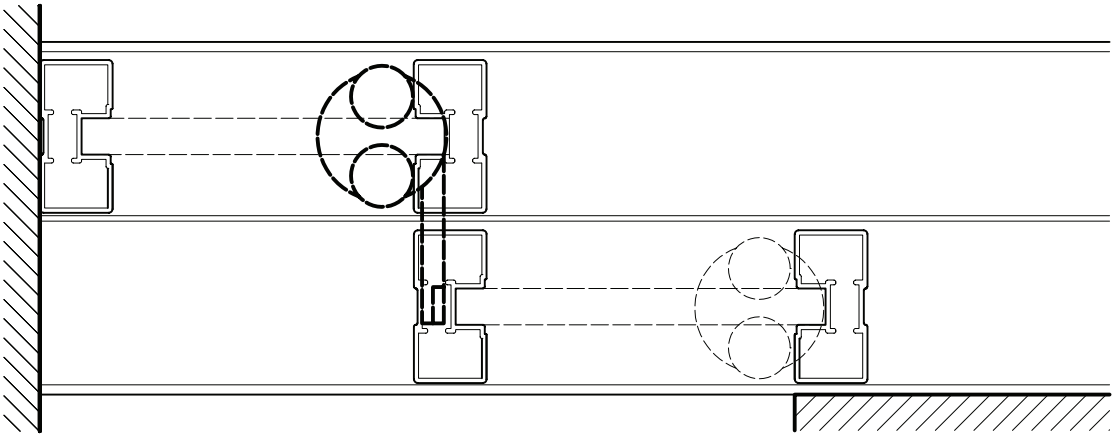


Closed position

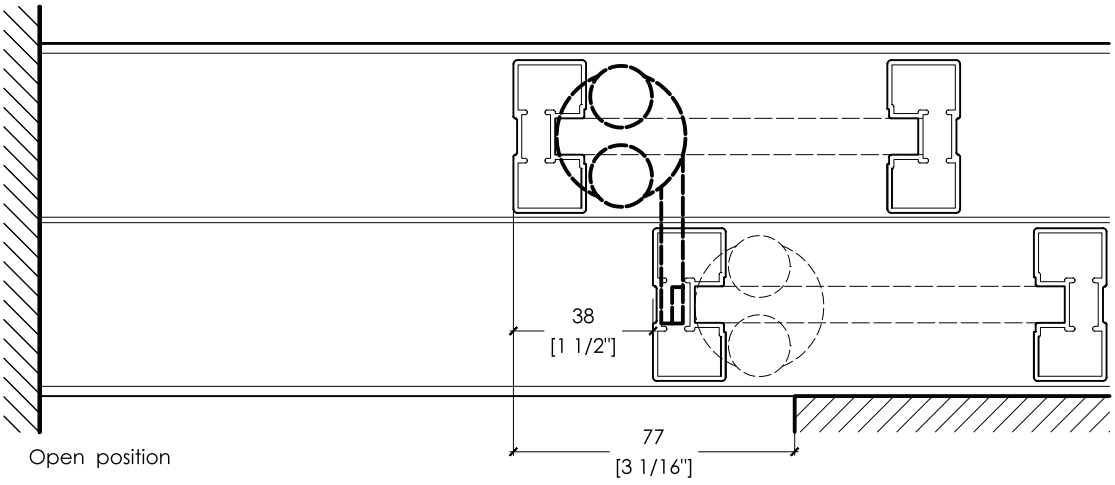


Open position

8.2_ S1500 Ganging / double, right



Closed position



Open position

8.3_ S1500 Ganging notes

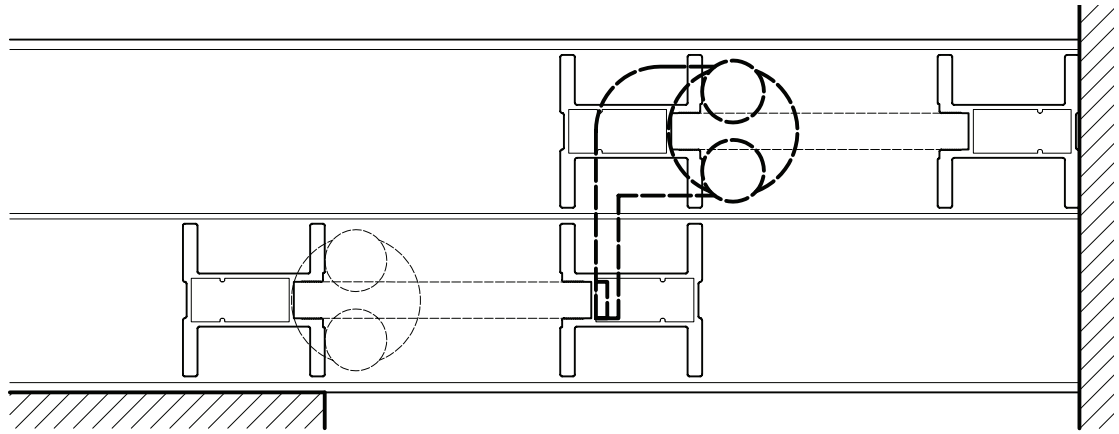
The ganging device makes it possible to open and close two AIR doors in one motion. Like the ground plate with roller, the ganging device is concealed under the bottom rail and keeps each door in line with the other doors. The first door will always have a ground plate with roller, which serves to anchor both doors to the floor. Refer to the diagrams to specify left or right ganging device.

Please note: doors ganged to each other stack staggered from one another (see diagrams).

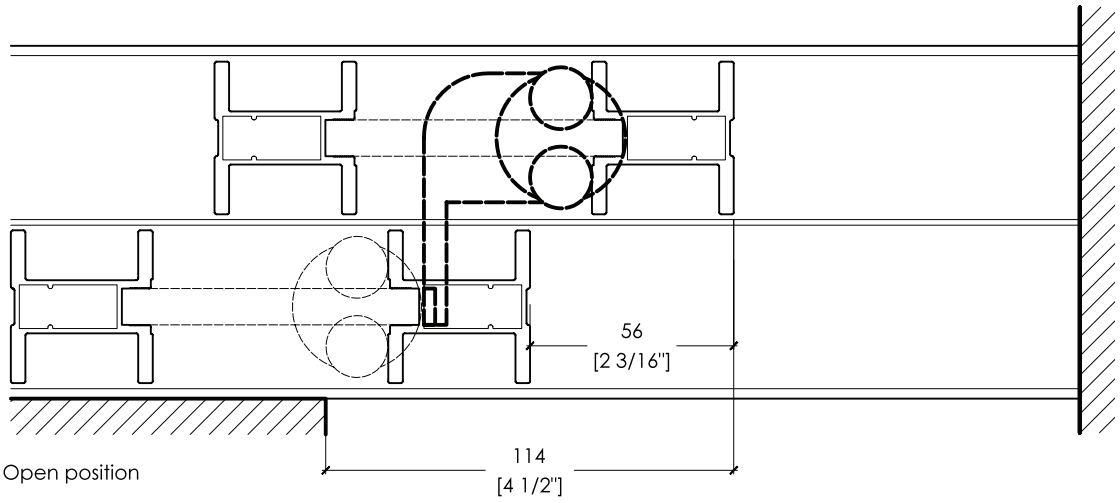
SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

8.4_ S3000 Ganging / double, left

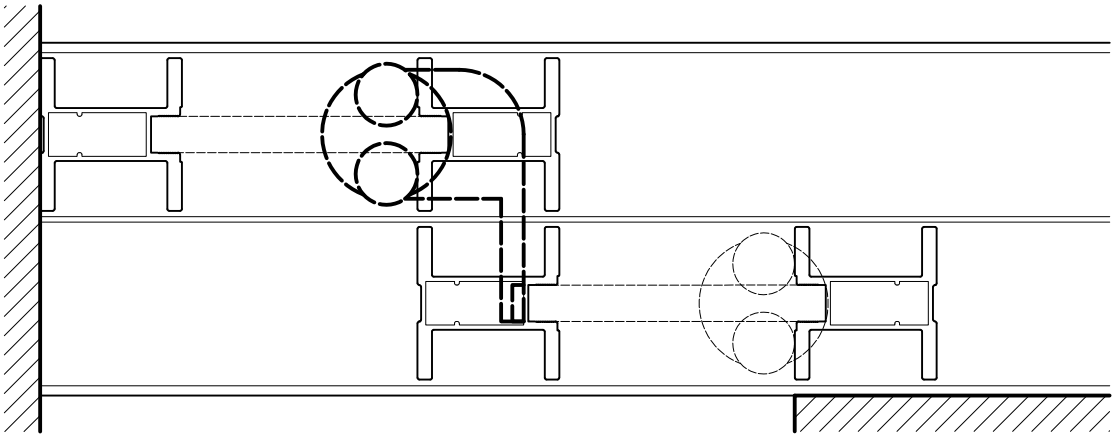


Closed position

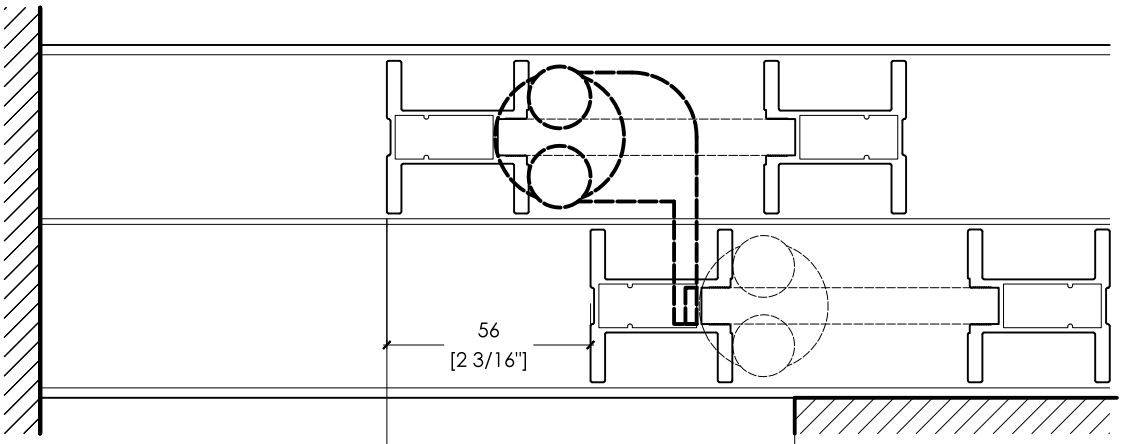


Open position

8.5_ S3000 Ganging / double, right



Closed position



Open position

8.6_ S3000 Ganging notes

The ganging device makes it possible to open and close two AIR doors in one motion. Like the ground plate with roller, the ganging device is concealed under the bottom rail and keeps each door in line with the other doors. The first door will always have a ground plate with roller, which serves to anchor both doors to the floor. Refer to the diagrams to specify left or right ganging device.

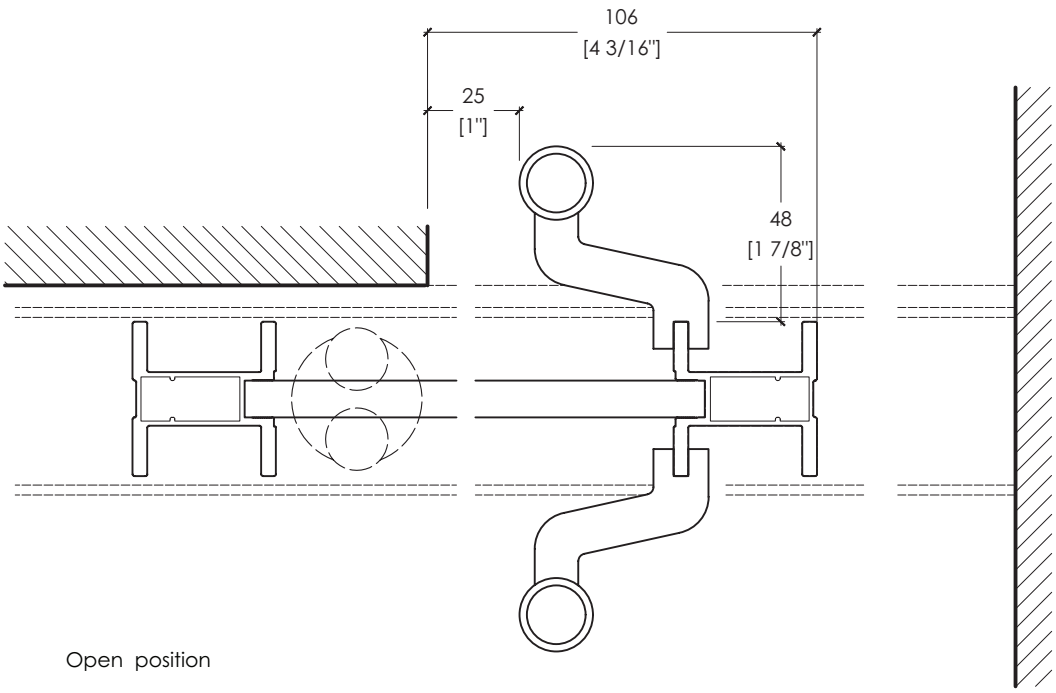
Please note: doors ganged to each other stack staggered from one another (see diagrams).

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

9_ Diagrams_Handles

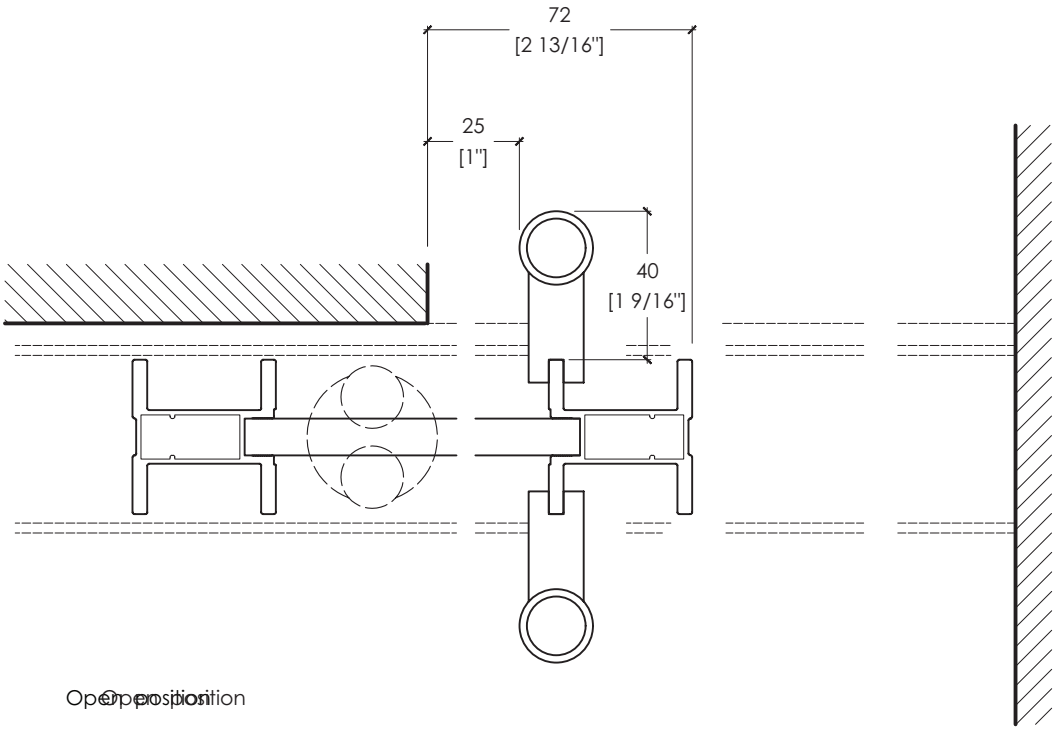
9.1_ S3000 ADA handle



9.1_ S3000 ADA handle notes

ADA bracket with rod handle complies with ADA requirements for sliding door handles, verify with local jurisdictions. If using handle on both sides of door, door will have limited travel. Use brake in top track to position door and to prevent handle from impacting wall.
*ADA rod handle can only be used with S3000 profile
*Avaliable in 305mm [1'-0"] intrements

9.2_ S3000 Rod handle



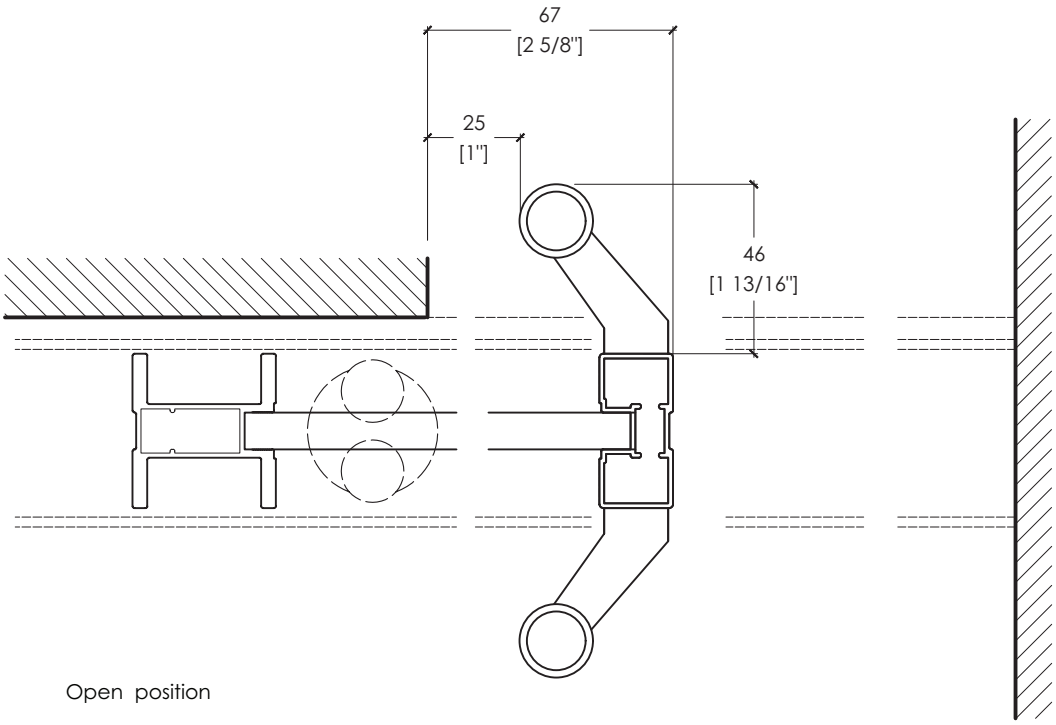
9.2_ S3000 Rod handle notes

If using a rod handle on both sides of door, door will have limited travel. Use brake in top track to position door and to prevent handle from impacting wall.
*ADA rod handle can only be used with S3000 profile
*Avaliable in 305mm [1'-0"] intrements

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM

9.3 S1500 Rod Handle



9.3_ S1500 Rod handle notes

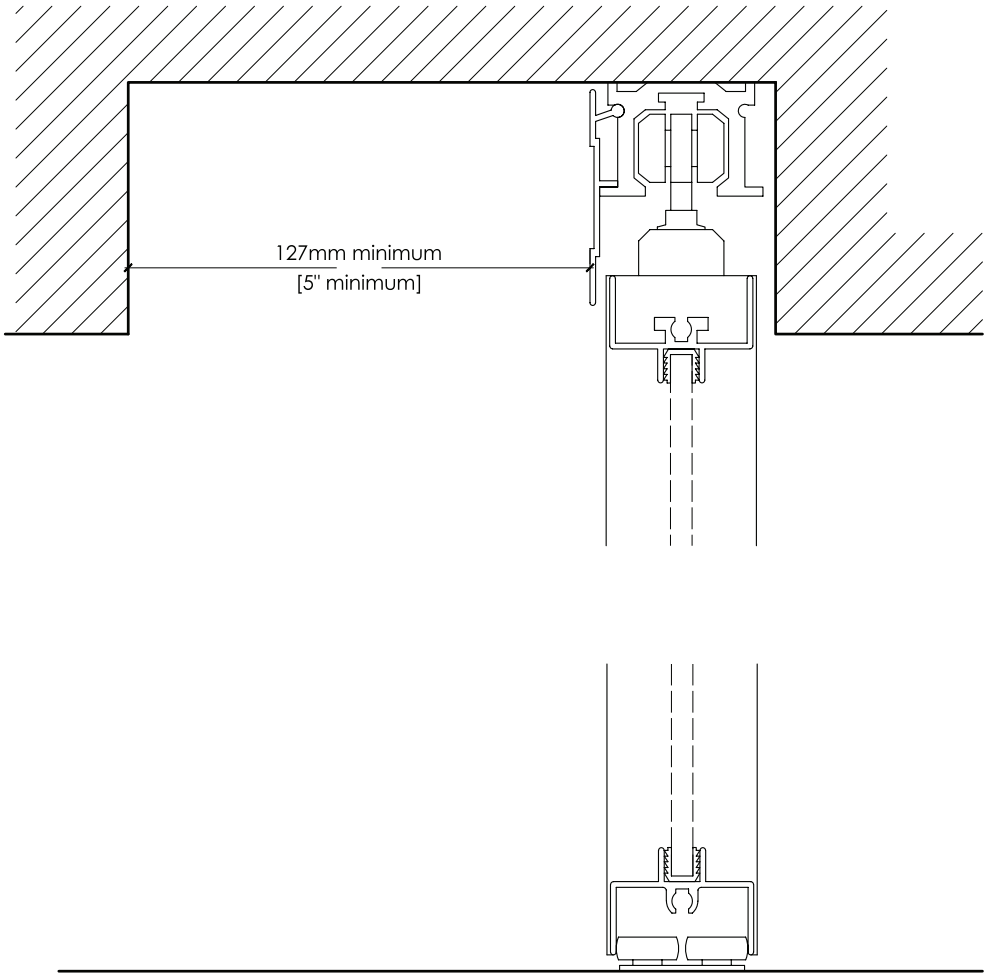
If using a rod handle on both sides of door, door will have limited travel. Use brake in top track to position door and to prevent handle from impacting wall.

*ADA rod handle can only be used with S3000 profile

*Avaliable in 305mm [1'-0"] intrements

10_ Diagrams_Recessed AIR top track

10.1_ Recessed AIR top track

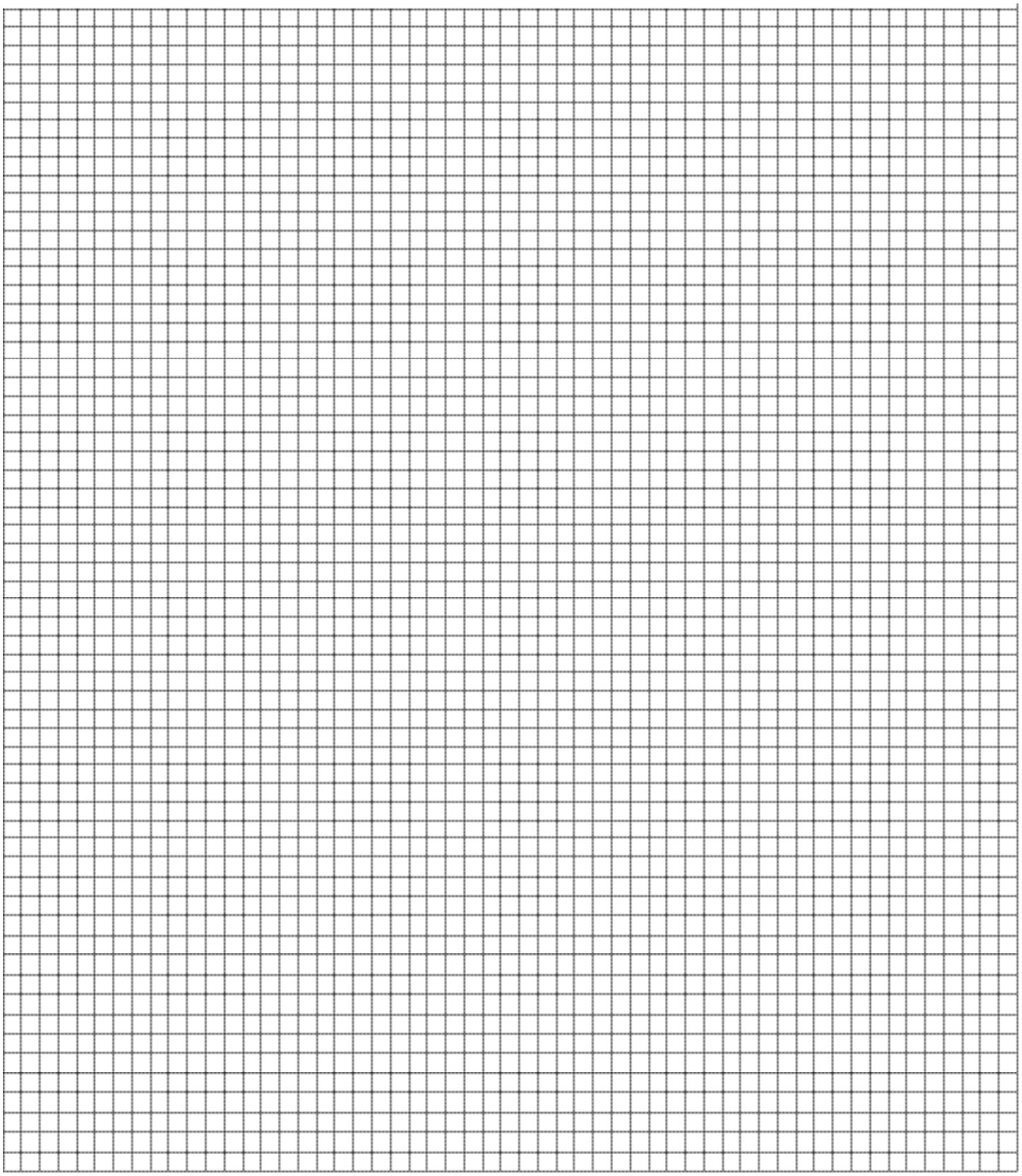


10.1_ Recessed AIR top track notes:

To recess AIR top track, an additional 5" [127mm] is required in the pocket. Additional depth in pocket allows for access to hardware. Adjustment for the AIR door occurs at the nut and bolt, where the top roller is connceted to the fixation plate on the top rail. Door will need to be adjusted upon installation and over time. The valance covers the hardware so its is not visible, it is not integral for the operation of the door.

SYSTEM DESCRIPTION_ AIR

SLIDING DOOR SYSTEM



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