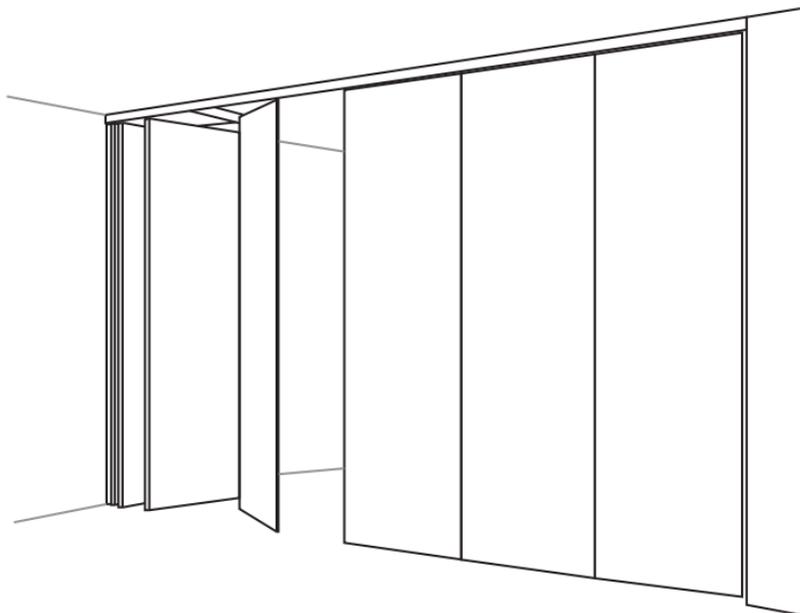


# SIGMA MD OC

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- > Installation instructions pg 32
- > Instrutivo de montagem pg 62



# índice

SIGMA MD OC es un sistema corredizo colgante para puertas de madera de hasta 120 Kg, que permite apilar las puertas para lograr una apertura total del vano. El sistema queda oculto en la puerta, lo que permite presentar paños limpios sin herrajes a la vista. Al combinar con el Kit Puerta Abatible MD, es posible incorporar una puerta de paso.

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**\*TODAS LAS MEDIDAS ESTÁN INDICADAS EN MILÍMETROS**

## Datos generales y descuentos de puertas



CAPACIDAD DE CARGA  
POR HOJA



PESO MÁXIMO  
ÁREA APILAMIENTO



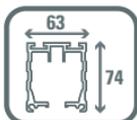
ESPESOR  
DE PUERTA



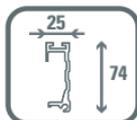
ANCHO  
DE PUERTA



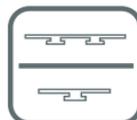
PERSONAS NECESARIAS  
PARA LA INSTALACIÓN



RIEL COMPLETO

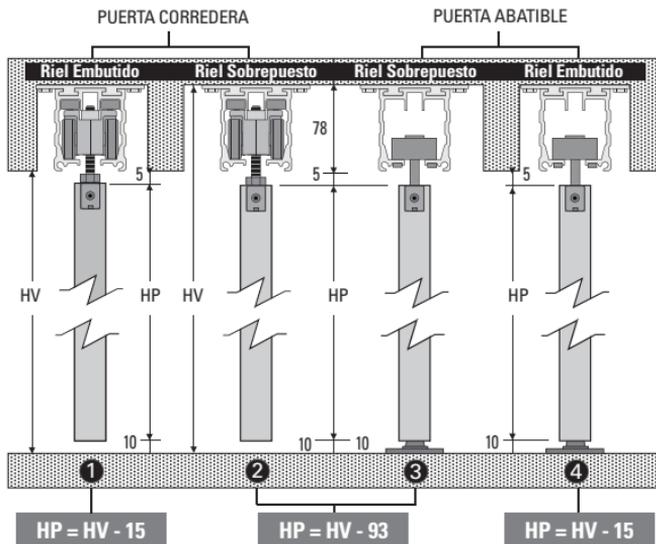


MEDIO RIEL

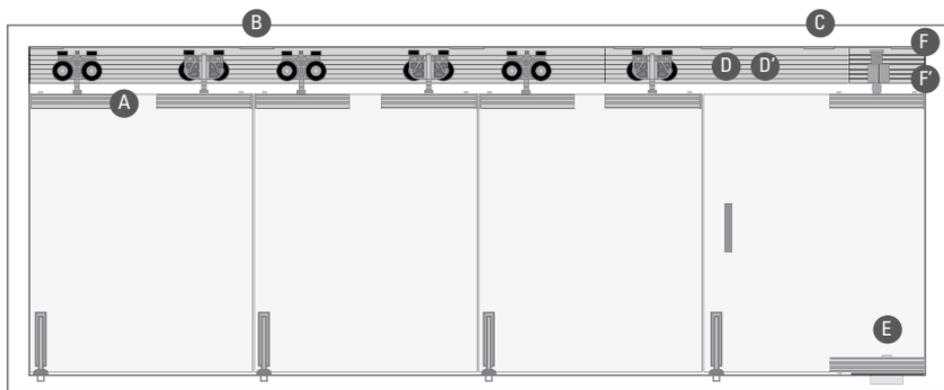


CONECTOR RIEL COMPLETO  
CONECTOR MEDIO RIEL

## Descuentos para altura de puertas



## Detalle de partes y piezas



### A KIT CARROS SIGMA MD OC

2	Carros Sigma MD OC	
2	Cajas móviles carro	
2	Bases fijas	
2	Tapas caja móvil	
1	Llave Segmenta	
1	Llave Allen 2.5mm	
1	Llave Allen 3mm	
2	Pernos	
6	Tornillos	

### B CONECTOR RIEL COMPLETO

1	Conector riel completo	
---	------------------------	--

### C KIT CONECTORES MEDIO RIEL

2	Conectores medio riel	
---	-----------------------	--

### D KIT CURVAS 45° SIGMA

1	Curva C1 45°	
1	Curva C2 45°	
8	Pasadores	
3	Topes Sigma	
4	Tapas rieles Sigma	
3	Pernos	

### D' KIT CURVAS 90° SIGMA

1	Curva C1 90°	
1	Curva C2 90°	
8	Pasadores	
3	Topes Sigma	
6	Conectores medio riel 20mm	
4	Tapas rieles Sigma	
3	Pernos	

### E KIT PUERTA ABATIBLE MD

2	Bases fijas	
1	Caja móvil pivote	
1	Caja móvil quicio	
1	Conjunto pivote	
1	Quicio rodamiento	
2	Tapas caja móvil	
1	Alineador PLMD	
1	Llave Segmenta	
1	Llave Allen 2.5mm	
1	Llave Allen 3mm	
6	Tornillos	
2	Pernos	

### F KIT RIEL PUERTA ABATIBLE SIGMA 45°

1	Riel completo 100mm	
1	Conector riel completo	
1	Llave Allen 3mm	
1	Llave Allen 4mm	
2	Pernos	

### F KIT RIEL PUERTA ABATIBLE SIGMA 90°

1	Riel completo 100mm	
1	MRL1	
1	Conector riel completo	
1	Conector medio riel 20mm	
1	Pasador	
1	Llave Allen 3mm	
1	Llave Allen 4mm	
2	Pernos	

### IMPORTANTE

El sistema de apilamiento perpendicular (curvas 45°) considera siempre una puerta abatible de paso entre ambos espacios, de esta manera no es necesario tener que apilar todo el sistema para transitar entre ellos.

En el sistema de apilamiento paralelo (curvas 90°) se puede prescindir de esta puerta y utilizar un paño fijo.

Para las configuraciones de apilamiento perpendicular + puerta abatible (curvas 45°) se necesitan también los "Kit puerta abatible MD" y el "Kit riel puerta abatible Sigma 45°".

Sólo para la configuración de apilamiento paralelo + puerta abatible se debe agregar el "Kit riel puerta abatible Sigma 90°".

\*FIJACIONES AL PISO Y TIRADORES NO INCLUIDOS.

### HERRAMIENTAS NECESARIAS

Taladro	
Brocas ø3 / ø6 / ø35	
Plomo	
Destornillador cruz	
Huinchas de medir	

## Configuración de rieles según tipo de apilamiento

Como primer paso, se debe definir el nº de puertas y dividir el vano en segmentos iguales cuidando que el ancho de puertas esté dentro de los anchos recomendados.

### Apilamiento perpendicular de puertas (con Kit curvas 45°)

- En este tipo de configuración perpendicular se debe verificar el ancho de puerta (AP) en la tabla que se muestra a continuación. El ancho debe estar dentro del rango permitido (mín-máx) con respecto a la cantidad de puertas definidas. Si no es así, se debe cambiar la cantidad de hojas en el vano.

Nº puertas *(nP)	Ancho mín. puerta (mm)	Ancho máx. puerta (mm)	Ancho mín. vano (mm)	Ancho máx. vano (mm)	*** Peso máximo del sistema (Kg.)
3	700	1.500	2.100 + 3(np-1)	4.500 + 3(np-1)	120 (np-1)
4	700	1.500	2.800 + 3(np-1)	6.000 + 3(np-1)	120 (np-1)
5	752	1.500	3.758 + 3(np-1)	7.500 + 3(np-1)	120 (np-1)
6	837	1.500	5.020 + 3(np-1)	9.000 + 3(np-1)	120 (np-1)
7	922	1.500	6.451 + 3(np-1)	10.500 + 3(np-1)	120 (np-1)
8	1.007	1.500	8.053 + 3(np-1)	12.000 + 3(np-1)	120 (np-1)
9	1.092	1.500	9.825 + 3(np-1)	13.500 + 3(np-1)	120 (np-1)
10	1.177	1.500	11.766 + 3(np-1)	15.000 + 3(np-1)	120 (np-1)

\* = Número de puertas.

\*\* Todas las medidas están en mm.

\*\*\* El peso máximo del sistema no considera la puerta abatible, ya que esta va montada en el quicio hidráulico.

### Corte de rieles e identificación de piezas

- Cortar los rieles según las siguientes fórmulas, a partir del tamaño del vano y en el orden indicado por los números del 1 al 6 (Fig. 1).

<b>AP</b>	= ancho puerta
<b>MRC</b>	= medio riel corto
<b>MRD</b>	= medio riel diagonal
<b>MRL</b>	= medio riel largo
<b>RC</b>	= riel completo
<b>C1</b>	= curva 1
<b>C2</b>	= curva 2
<b>CRC</b>	= conector riel completo
<b>CMR</b>	= conector medio riel
<b>nP</b>	= Nº puertas
<b>AV</b>	= ancho vano
<b>DR</b>	= cota interior entre MRC y MRL
<b>e</b>	= espesor puerta

#### CONECTORES:

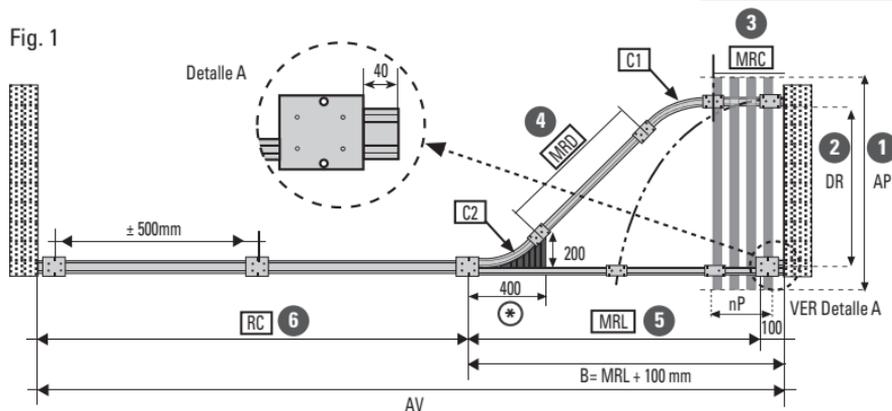
Utilice un conector de riel (medio riel y riel completo) en cada unión de rieles, y cada 500mm como refuerzo según corresponda.

**Nº CMR:** mínimo 6 unidades.

**Nº CRC:** 1 para unión C2 con RC + 1 cada 500mm + 1 pivote superior.

\*En caso de instalaciones con apilamiento en ambos extremos, dividir el vano por la mitad y utilizarlo como nuevo ancho de vano para aplicar fórmulas indicadas\*

Fig. 1



\* Zona ajuste contratuercas (sistema embutido): sólo cuando el sistema de rieles va embutido en el cielo, se debe dejar esta zona libre para poder ajustar la contratuercas de los carros. Puede llevar una tapa de terminación que se pueda sacar en caso de necesitar algún ajuste.

### Fórmulas para calcular la longitud de los rieles (expresadas en mm)

- Definir las medidas del vano (ancho y alto) y espesor de puerta (e).
- Luego, definir la cantidad de puertas (nP) dividiendo el vano en segmentos iguales.

AV =  e =  nP =

1  $AP = \frac{AV - 3nP - 7}{nP}$  AP =  $\frac{\text{[ ]} - \text{[ ]} - 7}{\text{[ ]}}$  =

2 DR = AP - 150 DR =  - 150 =

3  $MRC = 85nP + 50 + \frac{AP \times e}{447.36}$  MRC =  + 50 +  $\frac{\text{[ ]} \times \text{[ ]}}{447.36}$  =

4  $MRD = \frac{DR - 308}{0,707}$  MRD =  $\frac{\text{[ ]} - 308}{0,707}$  =

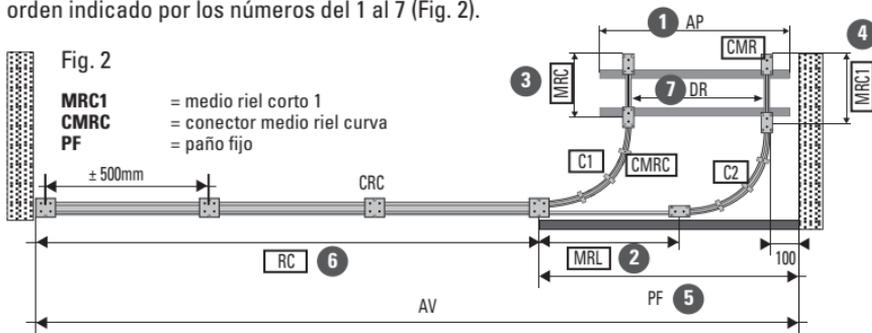
5 MRL = MRC + AP + 152 MRL =  +  + 152 =

6 RC = AV - MRL - 110 RC =  -  - 110 =

Como primer paso, se debe definir el n° de puertas y dividir el vano en segmentos iguales.

### Apilamiento paralelo de puertas + paño fijo (con Kit curvas 90°)

- Cortar los rieles según las siguientes fórmulas, a partir del tamaño del vano y en el orden indicado por los números del 1 al 7 (Fig. 2).



### Fórmulas para calcular la longitud de los rieles (expresadas en mm)

- Definir las medidas del vano (ancho y alto) y espesor de puerta (e).

- Luego, definir la cantidad de puertas (nP) dividiendo el vano en segmentos iguales.

AV =  e =  nP =

1  $AP = \frac{AV - [3(nP-1) + 10] - 250}{nP+1}$  AP =  $\frac{\text{[ ]} - \text{[ ]} - 250}{\text{[ ]}}$  =

2 MRL = AP - 127 MRL =  - 127 =

3 MRC = 85nP + 25 MRC =  + 25 =

4 MRC1 = MRC + 39 MRC1 =  + 39 =

5 PF = MRL + 530 PF =  + 530 =

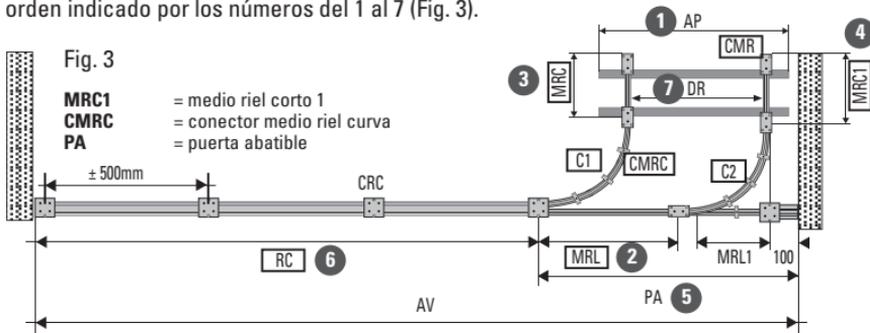
6 RC = AV - (PF + 10) RC =  -  =

7 DR = MRL - 24 DR =  - 24 =

Como primer paso, se debe definir el n° de puertas y dividir el vano en segmentos iguales.

### Apilamiento paralelo de puertas + puerta abatible (con Kit curvas 90°)

- Cortar los rieles según las siguientes fórmulas, a partir del tamaño del vano y en el orden indicado por los números del 1 al 7 (Fig. 3).



### Fórmulas para calcular la longitud de los rieles (expresadas en mm)

- Definir las medidas del vano (ancho y alto) y espesor de puerta (e).
- Luego, definir la cantidad de puertas (nP) dividiendo el vano en segmentos iguales.

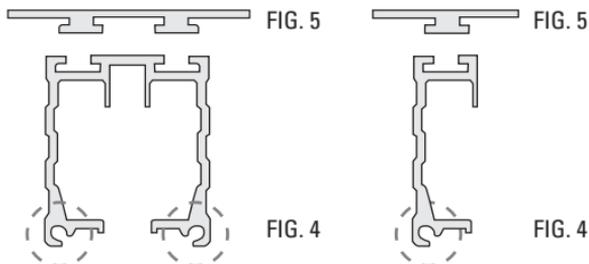
AV =  e =  nP =  PAa: e ≤ 45 PAb: 46 ≤ e ≤ 80

<b>1</b>	$AP = \frac{AV - [3(nP-1) + 10] - 250}{nP+1}$	AP = $\frac{\text{[ ]} - \text{[ ]} - 250}{\text{[ ]}}$ = <input type="text"/>
<b>2</b>	MRL = AP - 127	MRL = <input type="text"/> - 127 = <input type="text"/>
<b>3</b>	MRC = 85nP + 25	MRC = <input type="text"/> + 25 = <input type="text"/>
<b>4</b>	MRC1 = MRC + 39	MRC1 = <input type="text"/> + 39 = <input type="text"/>
<b>5</b>	PAa = AV - (nP*AP) - [3(nP-1) + 15] PAb = AV - (nP*AP) - [3(nP-1) + 20]	PA = <input type="text"/> - <input type="text"/> - <input type="text"/> = <input type="text"/>
<b>6</b>	RC = AV - (MRL + 540)	RC = <input type="text"/> - <input type="text"/> = <input type="text"/>
<b>7</b>	DR = MRL - 24	DR = <input type="text"/> - 24 = <input type="text"/>

### pasos 1

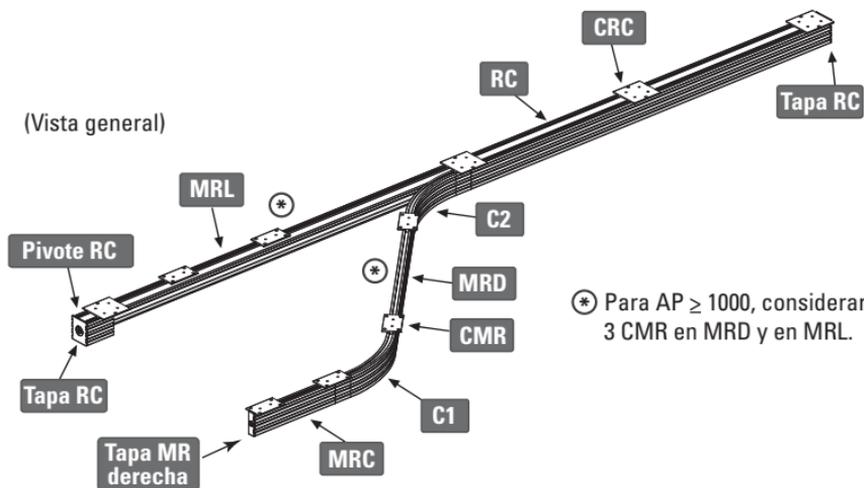
#### IMPORTANTE

- La superficie a recibir el sistema de rieles debe ser lo suficientemente firme como para soportar el peso de todas las hojas en la zona de apilamiento.
- Verificar tipo de anclaje al cielo y cómo puede afectar a la estructura.
- No instalar en cielo falso.
- Verifique que el suelo se encuentre a nivel para no tener problemas posteriores con el desplazamiento y apilamiento de las hojas.
- Armar el sistema de rieles en el suelo antes de instalar en el cielo y teniendo los carros ya montados. Recordar colocar en cada unión de riel (ya sea Riel completo o Medio riel) un pasador estriado en el canal circular inferior (fig. 4), introduciendo primero el lado estriado a presión.
- En la parte superior, ensamblar el conector que corresponda (fig. 5) dejando una mitad a cada lado y fijando la posición con los prisioneros.



## Apilamiento perpendicular de puertas (con Kit curvas 45°)

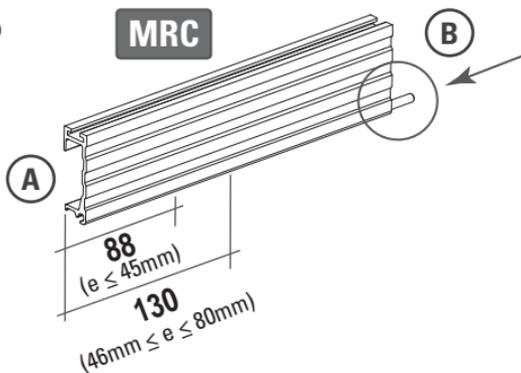
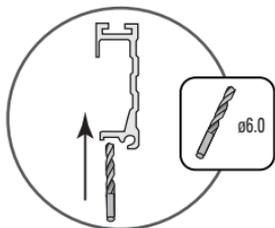
(Vista general)



\* Para  $AP \geq 1000$ , considerar 3 CMR en MRD y en MRL.

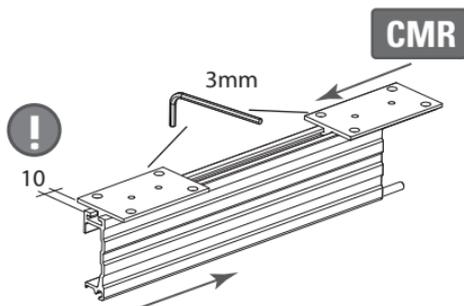
A. Perforar con broca  $\varnothing 6\text{mm}$  el Medio Riel Corto, a la distancia indicada en el esquema según el espesor de la puerta.

B. Colocar pasador estriado.



### ARMADO N°1

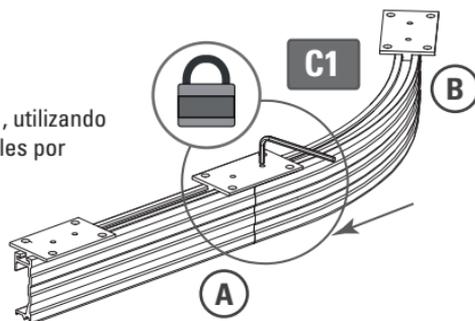
- Colocar Conectores Medio Riel en el Medio Riel Corto, dejando 10mm al borde. Fijar con llave Allen 3mm.



### ARMADO N°2

A. Ensamblar Curva 1 con armado n°1, utilizando la llave Allen para fijar ambos perfiles por medio de un Conector Medio Riel.

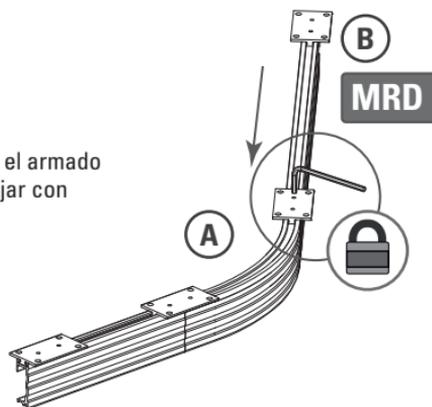
B. Colocar Conector Medio Riel en el otro extremo.

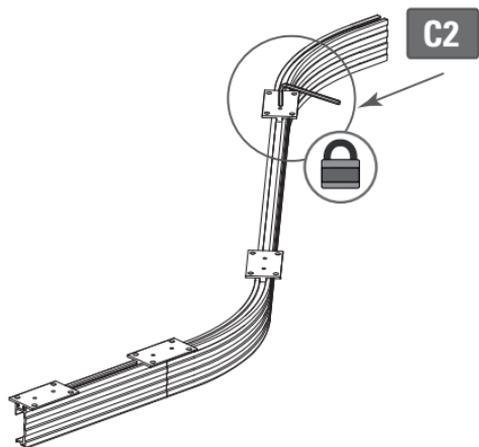


### ARMADO N°3

A. Ensamblar Medio Riel Diagonal con el armado n°2, con un Conector Medio Riel y fijar con llave Allen.

B. Colocar Conector Medio Riel en el otro extremo.



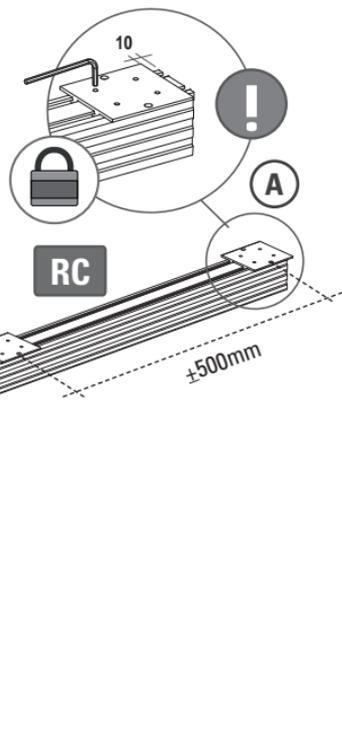


#### ARMADO N°4

- Ensamblar Curva 2 con el armado n°3 y fijar Conector Medio Riel con llave Allen.

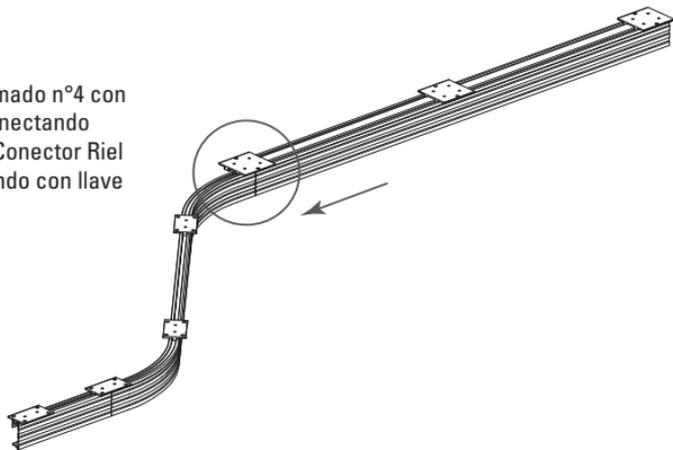
#### ARMADO N°5

- A. Colocar Conectores Riel Completo en el Riel Completo, dejando 10mm al borde. Fijar con llave Allen 3mm.
- B. En el otro extremo del riel, colocar pasadores y fijar Conector Riel Completo con llave Allen 3mm.



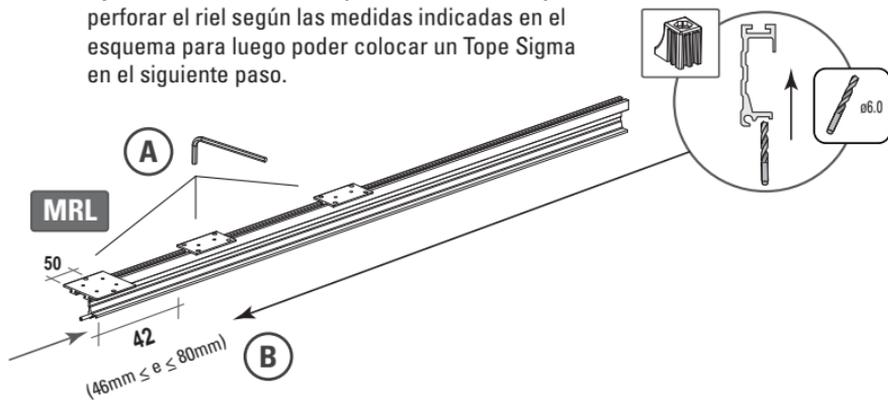
## ARMADO N°6

- Ensamblar armado n°4 con armado n°5, conectando ambos con un Conector Riel Completo y fijando con llave Allen 3mm.



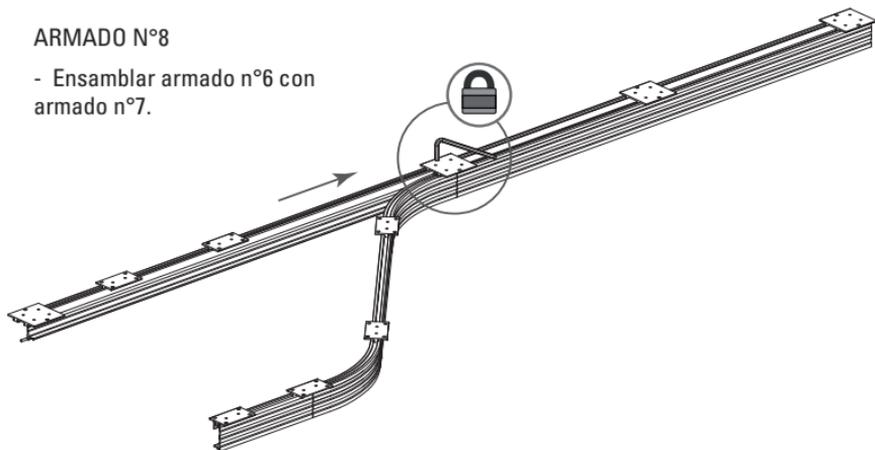
## ARMADO N°7

- Colocar Conectores Medio Riel en Medio Riel Largo y fijar con llave Allen 3mm.
- Fijar un Conector Riel Completo en el extremo, y perforar el riel según las medidas indicadas en el esquema para luego poder colocar un Tope Sigma en el siguiente paso.



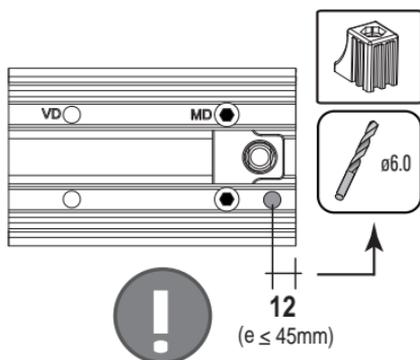
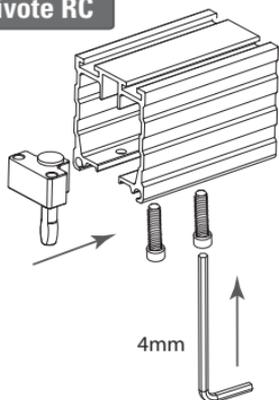
## ARMADO N°8

- Ensamblar armado n°6 con armado n°7.



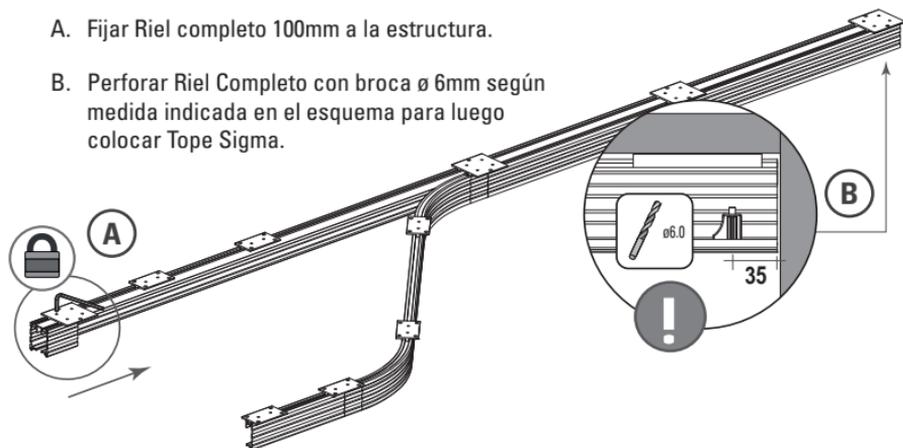
- Una vez armada la estructura principal, se debe introducir el Conjunto Pivote del "Kit puerta abatible MD" en el Riel completo 100mm del "Kit riel puerta abatible Sigma 45°", y fijar sus pernos con llave Allen 4mm.
- Luego, hacer perforación e introducir Tope Sigma.

## Pivote RC

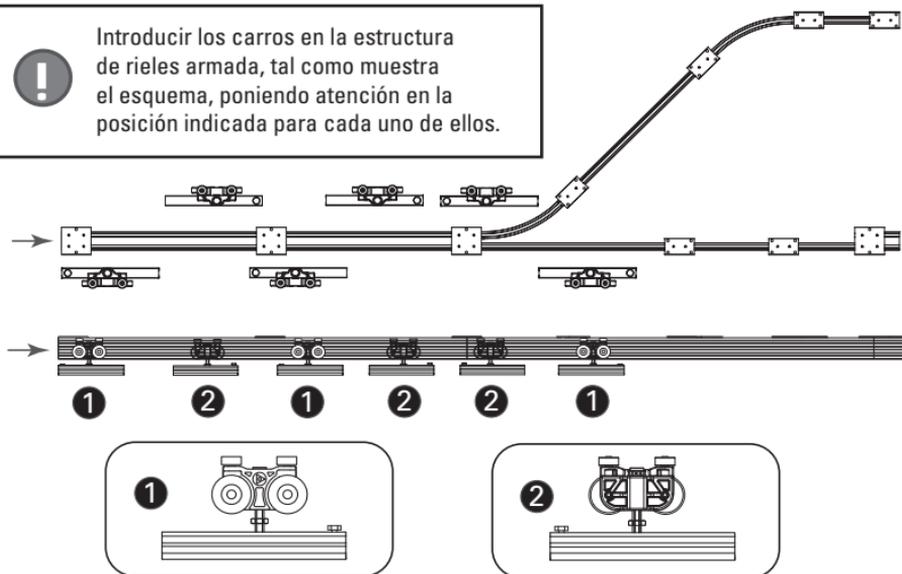


A. Fijar Riel completo 100mm a la estructura.

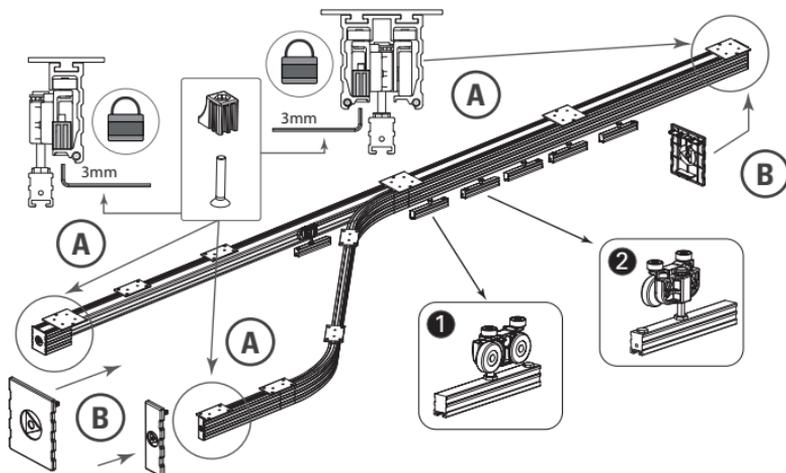
B. Perforar Riel Completo con broca  $\varnothing 6\text{mm}$  según medida indicada en el esquema para luego colocar Tope Sigma.



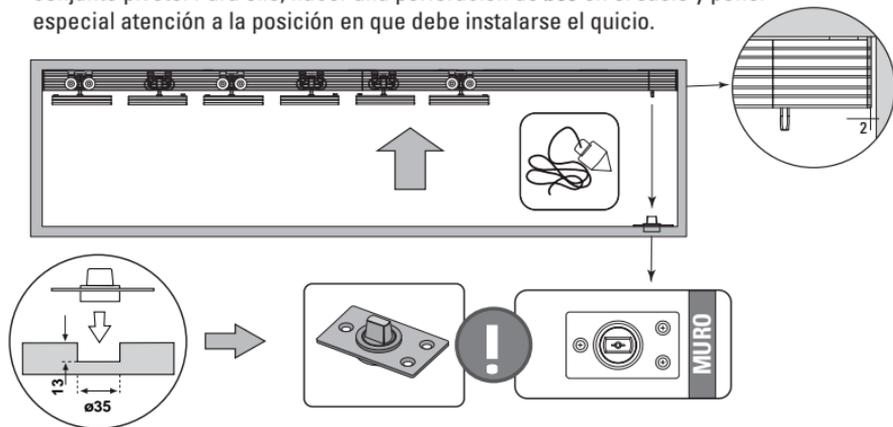
Introducir los carros en la estructura de rieles armada, tal como muestra el esquema, poniendo atención en la posición indicada para cada uno de ellos.



- A. Fijar Topes Sigma en los extremos de los rieles con llave Allen 3mm.
- B. Colocar Tapas rieles Sigma para un mejor acabado.

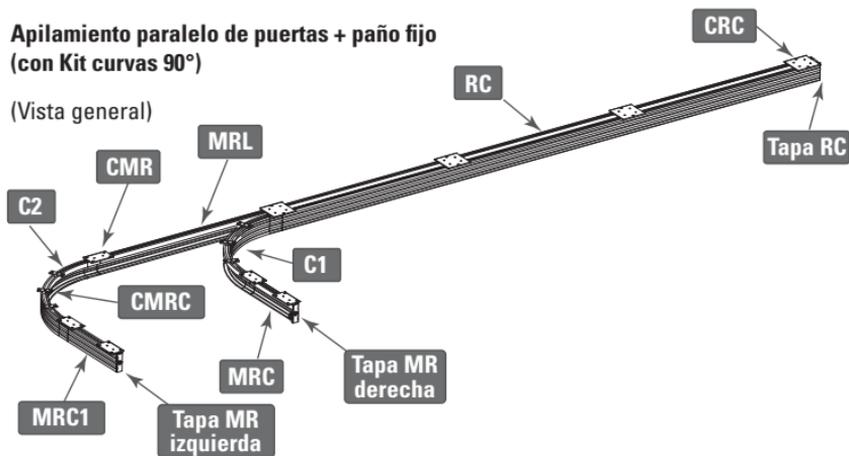


- Fijar estructura de rieles al cielo.
- Con la ayuda de un plomo, fijar el quicio rodamiento en el mismo eje que el conjunto pivote. Para ello, hacer una perforación de  $\varnothing 35$  en el suelo y poner especial atención a la posición en que debe instalarse el quicio.



## Apilamiento paralelo de puertas + paño fijo (con Kit curvas 90°)

(Vista general)

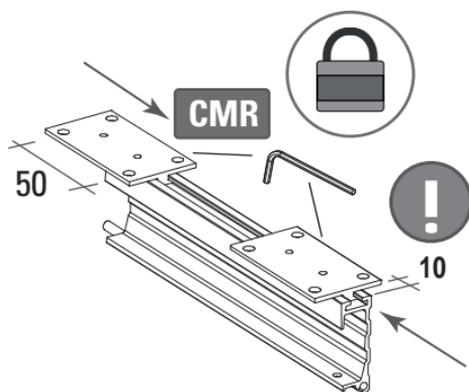
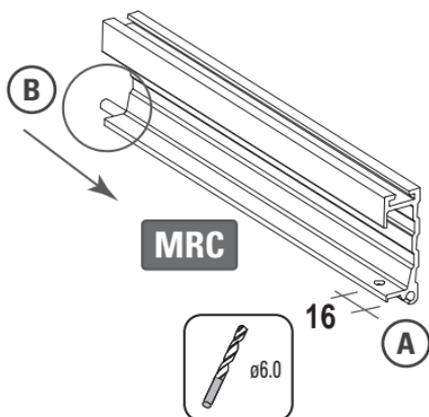


A. Perforar con broca  $\varnothing 6\text{mm}$  el Medio Riel Corto, a la distancia indicada en el esquema.

B. Colocar pasador estriado.

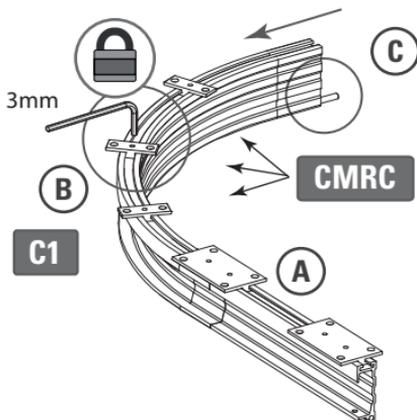
### ARMADO N°1

- Colocar Conectores Medio Riel en el Medio Riel, dejando 10mm al borde. Fijar con llave Allen 3mm.



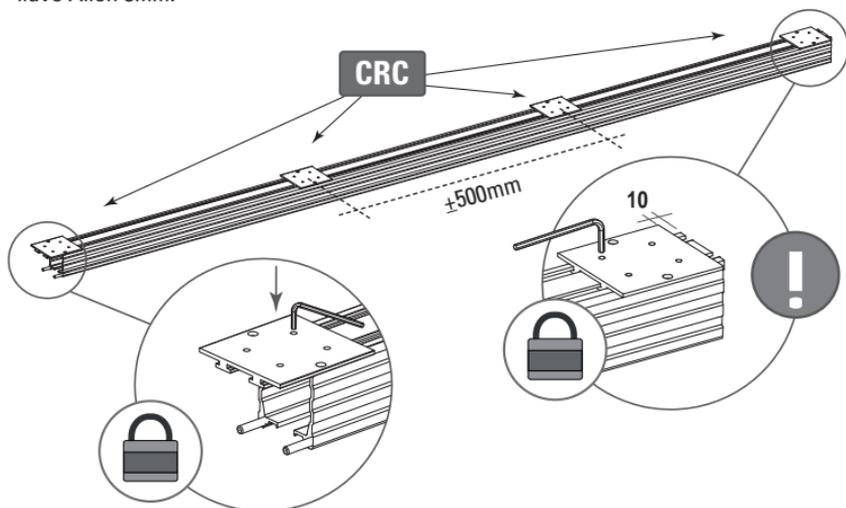
## ARMADO N°2

- A. Ensamblar Curva 1 con armado n°1, fijando el Conector Medio Riel.
- B. En la curva, fijar 3 Conectores Medio Riel 20mm con llave Allen.
- C. En el extremo de la curva colocar pasador estriado.



## ARMADO N°3

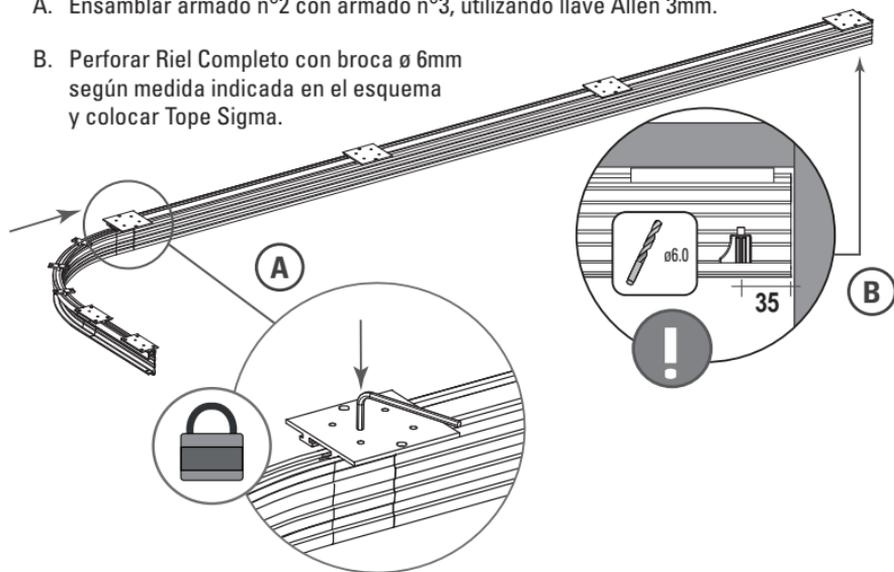
- Colocar Conectores Riel Completo en el Riel Completo, dejando 10mm al borde. Fijar con llave Allen 3mm.



## ARMADO N°4

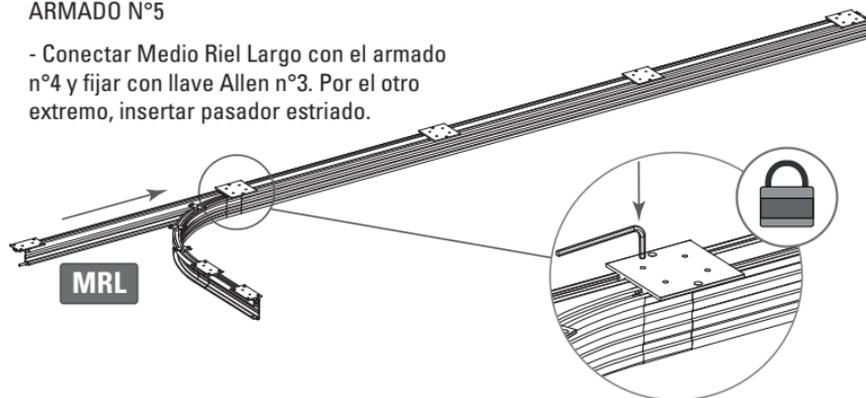
A. Ensamblar armado n°2 con armado n°3, utilizando llave Allen 3mm.

B. Perforar Riel Completo con broca  $\varnothing 6\text{mm}$  según medida indicada en el esquema y colocar Tope Sigma.



## ARMADO N°5

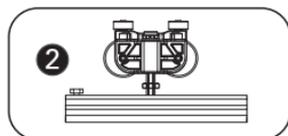
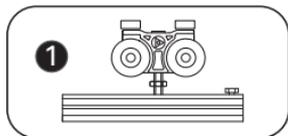
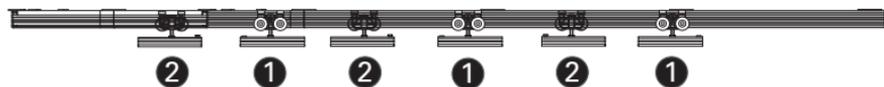
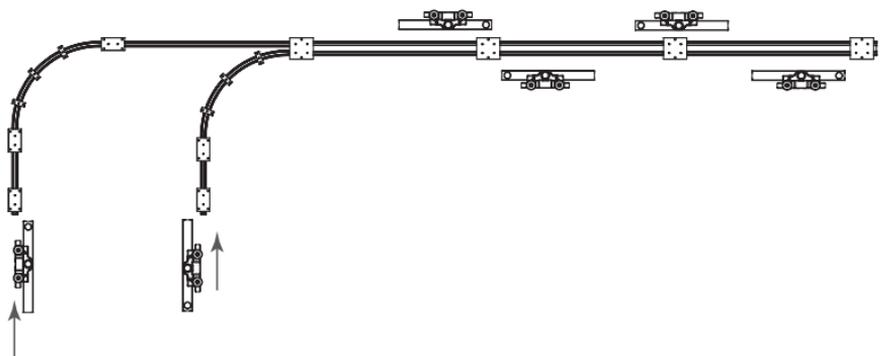
- Conectar Medio Riel Largo con el armado n°4 y fijar con llave Allen n°3. Por el otro extremo, insertar pasador estriado.



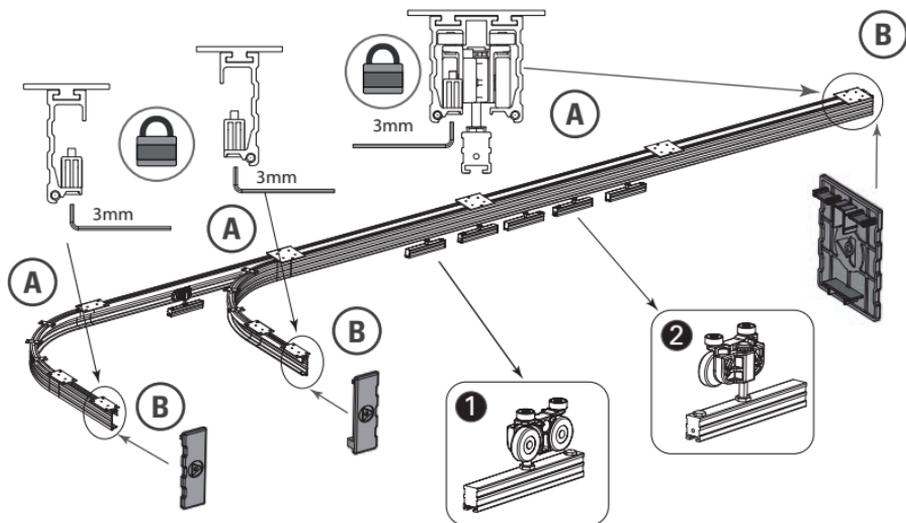




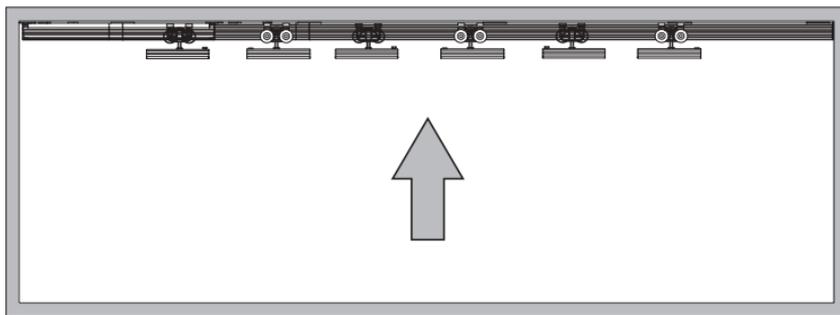
Introducir los carros en la estructura de rieles armada, tal como muestra el esquema, poniendo atención en la posición indicada para cada uno de ellos.



- A. Fijar Topes Sigma en los extremos de los rieles con llave Allen 3mm.
- B. Colocar Tapas rieles Sigma para un mejor acabado.

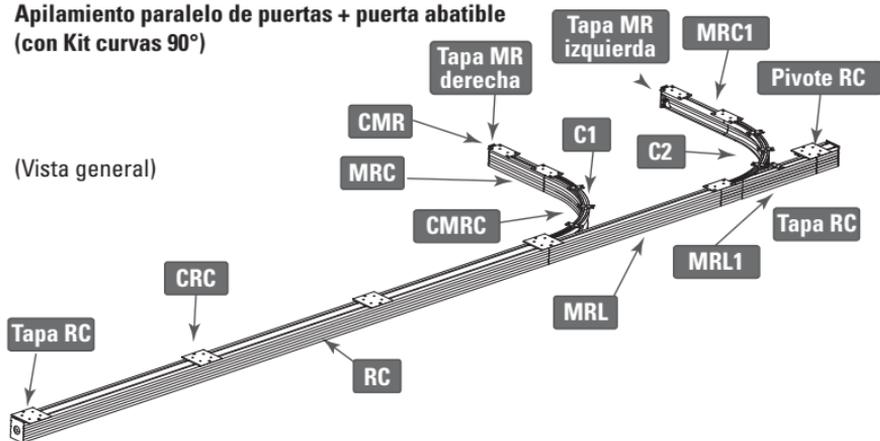


- Fijar estructura de rieles al cielo.



**Apilamiento paralelo de puertas + puerta abatible  
(con Kit curvas 90°)**

(Vista general)



**!** - Seguir el mismo procedimiento que el armado de rieles para apilamiento paralelo de puertas + paño fijo (ir a página 18), y luego continuar con los siguientes pasos.

- Ensamblar los componentes del Kit riel puerta abatible Sigma 90° como lo indica el esquema, quedando tal como la figura 6.

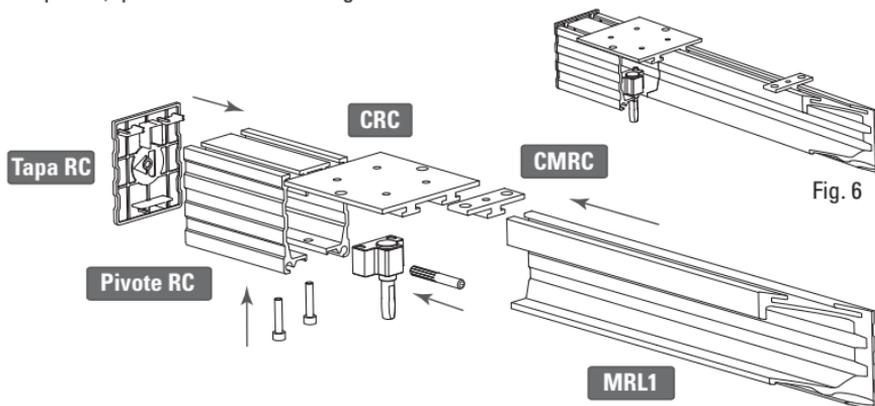
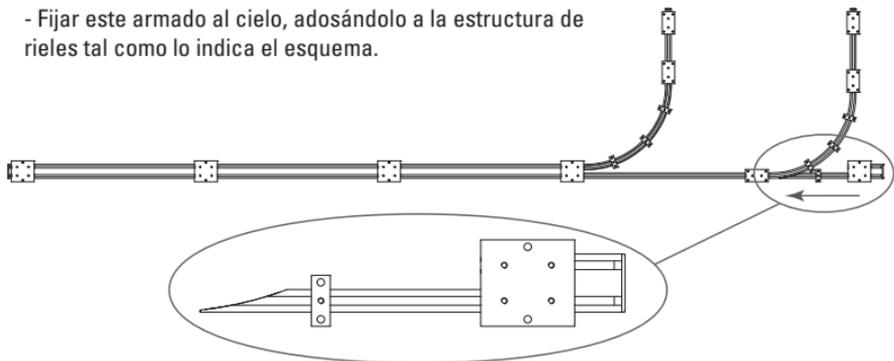
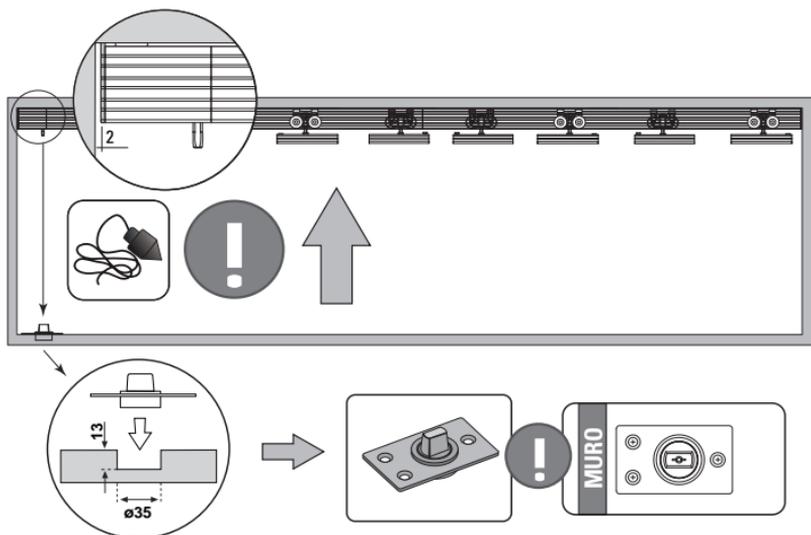


Fig. 6

- Fijar este armado al cielo, adosándolo a la estructura de rieles tal como lo indica el esquema.



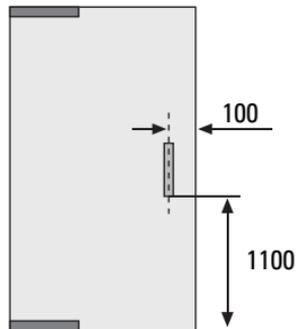
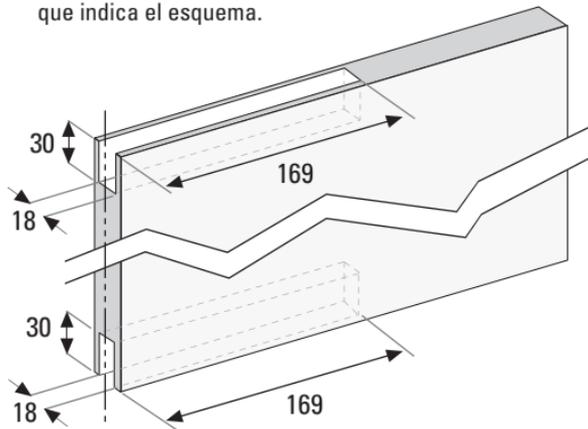
- Con la ayuda de un plomo, fijar el quicio rodamiento en el mismo eje que el conjunto pivote. Para ello, hacer una perforación de  $\varnothing 35$  en el suelo y poner especial atención a la posición en que debe instalarse el quicio.



## pasos 2

### Mecanizado PUERTA ABATIBLE

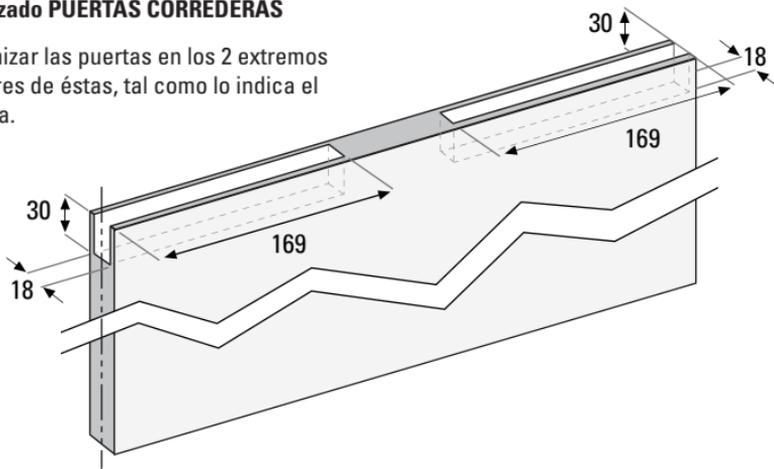
- Tanto en la parte superior como inferior de la puerta, hacer mecanizado según las medidas que indica el esquema.



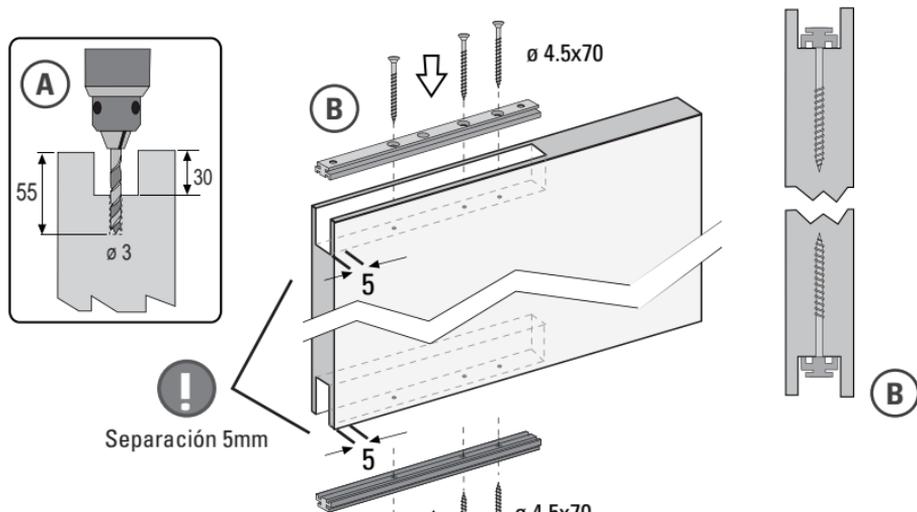
Medida referencial de instalación del tirador (no incluido en el kit)

### Mecanizado PUERTAS CORREDERAS

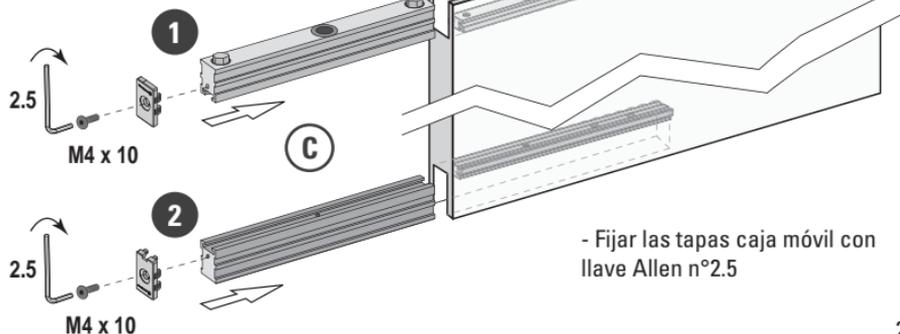
- Mecanizar las puertas en los 2 extremos superiores de éstas, tal como lo indica el esquema.



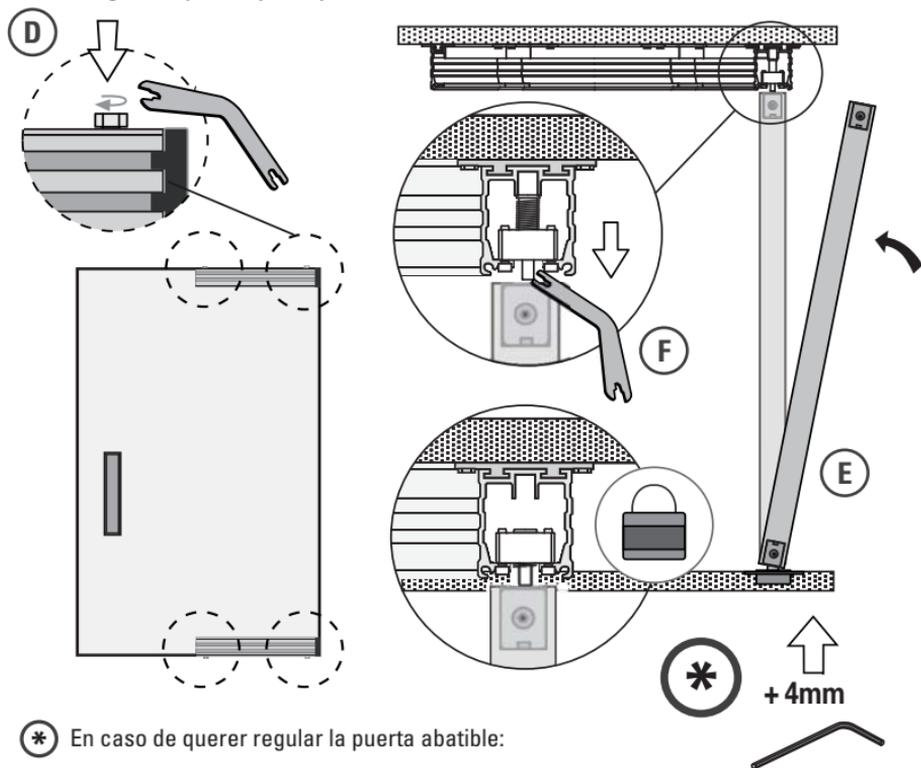
- A. Utilizar broca  $\varnothing 3\text{mm}$  para hacer las perforaciones para instalar luego las bases fijas.
- B. Colocar las bases fijas en la puerta mecanizada, tanto arriba como abajo, y fijar con tornillos  $\varnothing 4.5 \times 70$ , cuidando dejar a 5mm de separación del borde de la puerta.



- C. Introducir las cajas móvil pivote (1) y móvil quicio (2), arriba y abajo respectivamente, encajándolas con las bases fijas.



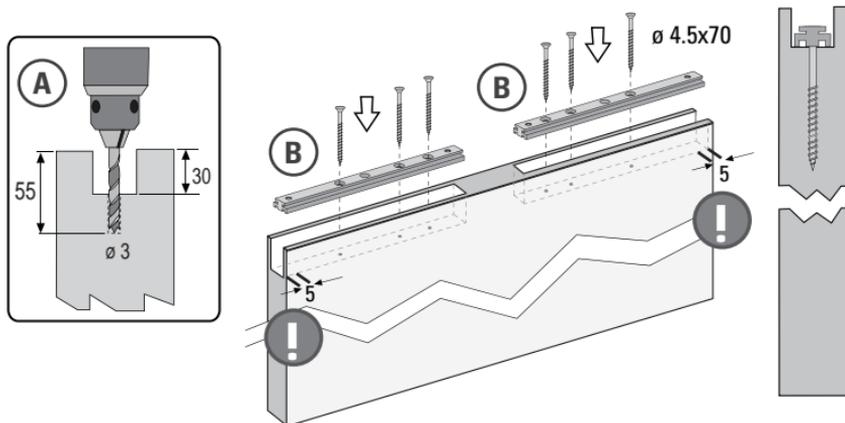
- D. Fijar las cajas móviles con la llave Segmenta.
- E. Montar la puerta, encajando la caja móvil quicio con el quicio rodamiento, y luego aplomar.
- F. Introducir el conjunto pivote dentro de la caja móvil pivote, ayudándose con la llave Segmenta para dejarlo fijo.



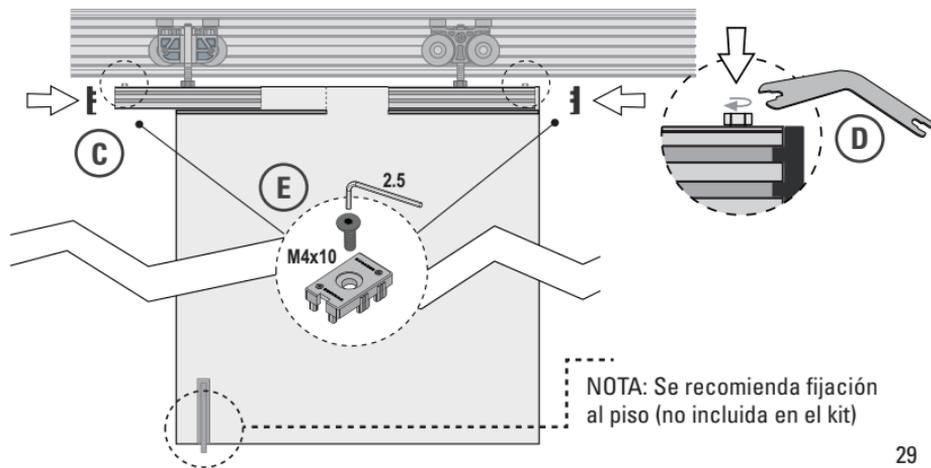
\* En caso de querer regular la puerta abatible:

1. Soltar el perno de fijación de las cajas móviles.
2. Desmontar la puerta de las cajas móviles (pivote y quicio).
3. Girar la puerta y regular el prisionero de la caja móvil quicio con llave allen de 3mm.
4. Montar la puerta en las cajas móviles y asegurar perno de fijación.

- A. Utilizar broca  $\varnothing 3\text{mm}$  para hacer las perforaciones para instalar luego las bases fijas.
- B. Colocar las bases fijas en la puerta mecanizada, a ambos lados, y fijar con tornillos  $\varnothing 4.5 \times 70$ , cuidando dejar a 5mm de separación del borde de la puerta.



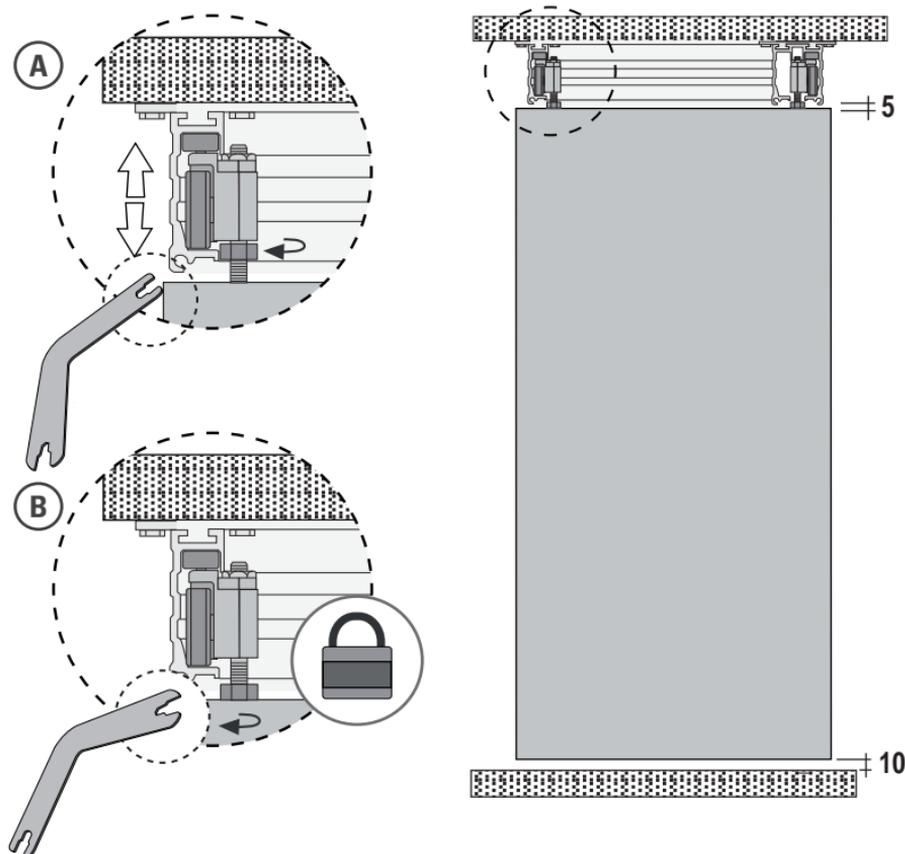
- C. Colocar las cajas móviles carro en las bases fijas.
- D. Fijar las cajas móviles con la llave Segmenta.
- E. Fijar las tapas caja móvil con llave Allen 2.5mm.



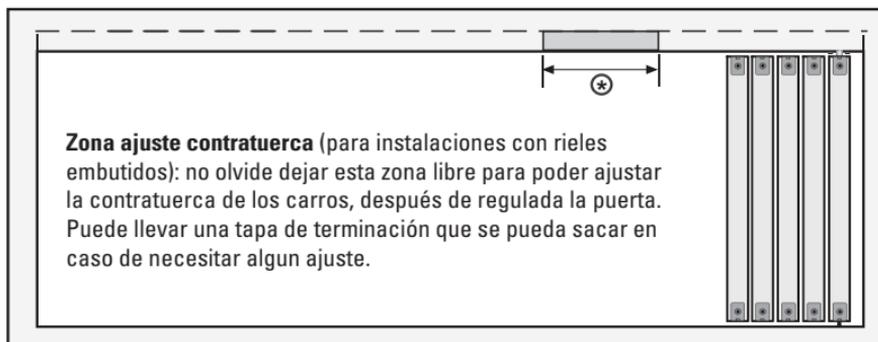
## Regulación de altura puertas correderas

### pasos 5

- A. Regular la altura de la puerta ajustando el perno del carro con la llave Segmenta, para dejar una luz superior de 5mm y una inferior de 10mm.
- B. Con el otro extremo de la llave Segmenta, ajustar la contratuerca del carro para evitar que se desregule.

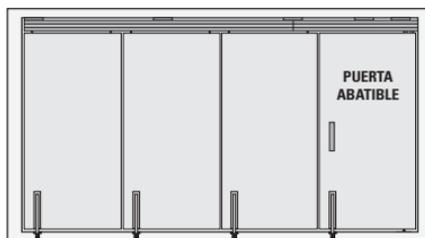


## Instalación con riel embutido - apilado

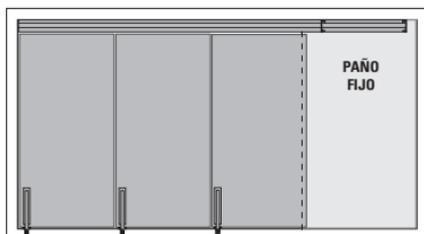


## FIJACIONES AL PISO

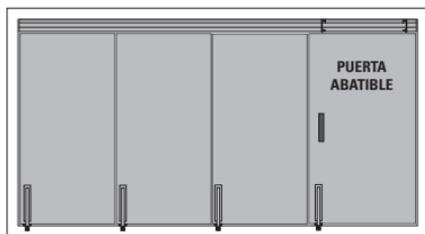
Cuando estén todas las puertas montadas, reguladas y en su posición final, se recomienda instalar en el suelo los casquetes o picaportes embutidos para cada una de ellas.



**Sigma MD OC - Kit curvas 45°**



**Sigma MD OC - Kit curvas 90° + Paño Fijo**



**Sigma MD OC - Kit curvas 90° + Puerta abatible**

# index

SIGMA MD OC is a hanging sliding system for wooden doors of up to 120 Kg, which allows stacking the doors to allow a total opening.

The system stays hidden in the door, allowing to present a clean look without hardware on sight. When combining with Pivot Door MD Kit, it is possible to incorporate a passage door.

- 33 General data and door discounts
- 34 Detail of parts and pieces
- 36 Track configuration according to stacking type
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  - 38 - Parallel door stacking + fixed panel (with Kit curves 90°)
  - 39 - Parallel door stacking + pivot door (with Kit curves 90°)
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- 60 Step 5: Sliding doors height adjustment

**\*ALL MEASUREMENTS ARE EXPRESSED IN MILLIMETERS**

## General data and door discounts



MAX DOOR WEIGHT



MAX WEIGHT IN STACKING AREA



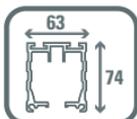
DOOR THICKNESS



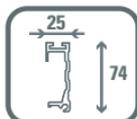
MAX DOOR WIDTH



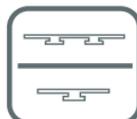
PEOPLE NEEDED FOR INSTALLATION



FULL TRACK

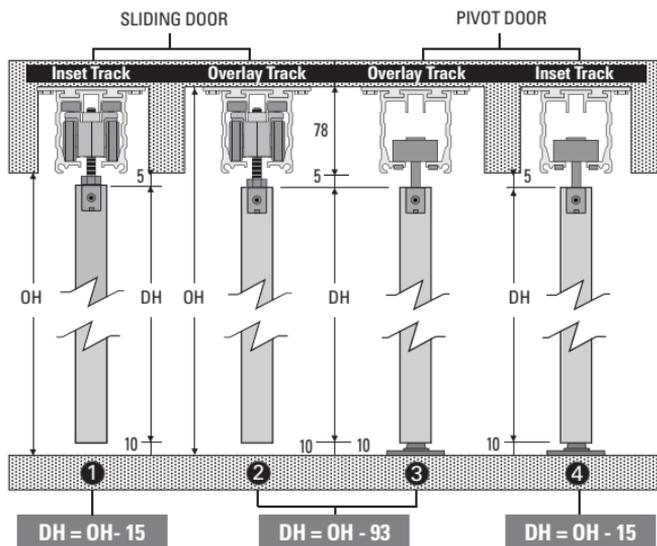


HALF TRACK



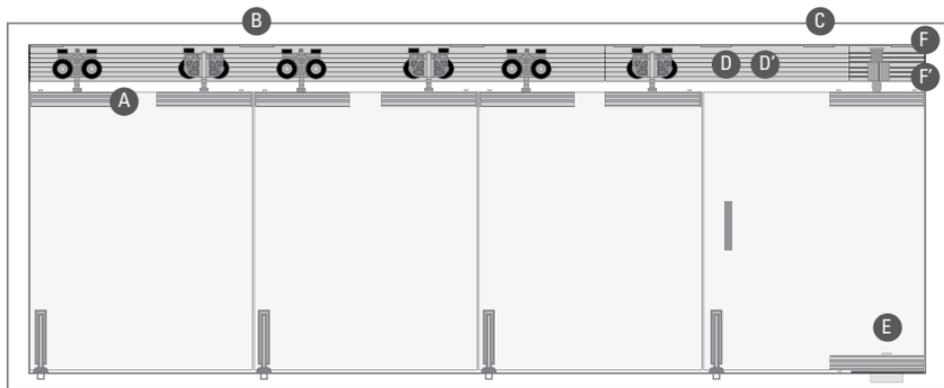
FULL TRACK BRACKET  
HALF TRACK BRACKET

## Discounts for door height



DH = Door Height  
OH = Opening Height

## Detail of parts and pieces



### A KIT SIGMA MD OC CARRIERS

2	Sigma MD OC Carriers	
2	Mobile plates	
2	Mounting plates	
2	End caps	
1	Segmenta key	
1	Allen key 2.5mm	
1	Allen key 3mm	
2	Bolts	
6	Screws	

### B FULL TRACK BRACKET

1	Full track bracket	
---	--------------------	--

### C KIT HALF TRACK BRACKET

2	Half-track bracket	
---	--------------------	--

### D KIT CURVES 45° SIGMA

1	C1 45° Curve	
1	C2 45° Curve	
8	Track pins	
3	Sigma stoppers	
4	Sigma track caps	
3	Bolts	

### D' KIT CURVES 90° SIGMA

1	C1 90° Curve	
1	C2 90° Curve	
8	Track pins	
3	Sigma stoppers	
6	Half-track bracket 20mm	
4	Sigma track caps	
3	Bolts	

### E PIVOT DOOR MD KIT

2	Mounting plates	
1	Upper Pivot Mobile plates	
1	Lower Pivot Mobile plates	
1	Upper pivot set	
1	Quicio rodamiento	
2	End caps	
1	Spring aligner	
1	Segmenta key	
1	Allen key 2.5mm	
1	Allen key 3mm	
6	Screws	
2	Bolts	

### F KIT TRACK PIVOT DOOR SIGMA 45°

1	Full Track 100mm	
1	Full Track brackets	
1	Allen key 3mm	
1	Allen Key 4mm	
2	Bolts	

### F KIT TRACK PIVOT DOOR SIGMA 90°

1	Full Track 100mm	
1	MRL1	
1	Full Track Brackets	
1	Half track brackets 20mm	
1	Track pins	
1	Allen key 3mm	
1	Allen key 4mm	
2	Bolts	

### IMPORTANT

The perpendicular stacking system (curves 45°) always considers a passage pivot door between both spaces. That way, it is not necessary to have to stack the whole system to be able to pass through them.

In the parallel stacking system (curves 90°) it is possible to do without this door and use a fixed panel.

For perpendicular stacking configurations + pivot door (curves 45°), "Pivot door MD Kit" and "Kit Track Pivot Door Sigma 45°" are also needed.

Only for the parallel stacking configuration + pivot door, "Kit Track Pivot Door Sigma 90°" must be added.

\*GROUND FIXATION AND DOOR HANDLES NOT INCLUDED.

### NECESSARY TOOLS

Drill	
Drill bits ø3 / ø6 / ø35	
Plumb line	
Screw driver	
Measuring tape	

## Track configuration according to stacking type

As a first step, the N° of doors and opening divisions in equal segments must be defined, making sure that the door width stays within the recommended widths.

### Perpendicular door stacking (with Kit curves 45°)

- In this type of perpendicular configuration, the door width (DW) must be verified in the table shown below. The width must be within the allowed range (min-max) according with the number of doors defined. Otherwise, the number of panels in the opening must be changed.

N° doors *(ND)	Min. door width (mm)	Max. door width (mm)	Min. opening width (mm)	Max. opening width (mm)	*** Max. system weight (Kg.)
3	700	1.500	2.100 + 3(np-1)	4.500 + 3(np-1)	120 (np-1)
4	700	1.500	2.800 + 3(np-1)	6.000 + 3(np-1)	120 (np-1)
5	752	1.500	3.758 + 3(np-1)	7.500 + 3(np-1)	120 (np-1)
6	837	1.500	5.020 + 3(np-1)	9.000 + 3(np-1)	120 (np-1)
7	922	1.500	6.451 + 3(np-1)	10.500 + 3(np-1)	120 (np-1)
8	1.007	1.500	8.053 + 3(np-1)	12.000 + 3(np-1)	120 (np-1)
9	1.092	1.500	9.825 + 3(np-1)	13.500 + 3(np-1)	120 (np-1)
10	1.177	1.500	11.766 + 3(np-1)	15.000 + 3(np-1)	120 (np-1)

\* = Number of doors.

\*\* All measurements are in mm.

\*\*\* The system's maximum weight does not consider the pivot door, since it goes mounted in the hydraulic jamb.

### Track length and parts identification

- Cut the tracks according with the following formulas, starting from the opening size and in the order indicated by numbers 1 through 6. (Fig. 1).

<b>DW</b>	= Door Width
<b>SHT</b>	= Short Half Track
<b>DHT</b>	= Diagonal Half Track
<b>LHT</b>	= Long Half Track
<b>FT</b>	= Full Track
<b>C1</b>	= Curve 1
<b>C2</b>	= Curve 2
<b>FTB</b>	= Full Track Bracket
<b>HTB</b>	= Half Track Bracket
<b>ND</b>	= N° Doors
<b>OW</b>	= Opening Width
<b>ID</b>	= Inside distance between SHT and LHT
<b>DT</b>	= Door Thickness

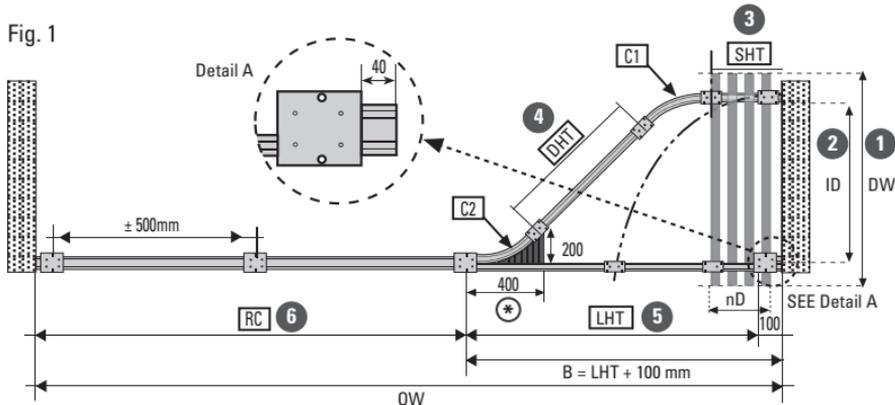
#### BRACKETS:

Use a track bracket (half-track and full track) in each track joint, and every 500mm as a reinforcement as needed.

**N° HTB:** 6 units minimum.

**N° FTB:** 1 for joint C2 with FT + 1 every 500mm + 1 upper pivot.

\*In the case of installations with stacking on both sides, divide the opening in half and use it as the new opening width to apply the shown formulas.\*



\* Counter-turn adjustment zone (inset system): Only when the track system goes inset in the ceiling, this zone must be left free in order to adjust the track counter-turn. It can include a termination cap that may be taken out in case of needing an adjustment.

### Formulas to calculate the length of the tracks (expressed in mm)

- Define the measurements of the opening (width and height) and the door thickness (DT).
- Then, define the number of doors (nD) dividing the opening in equal segments.

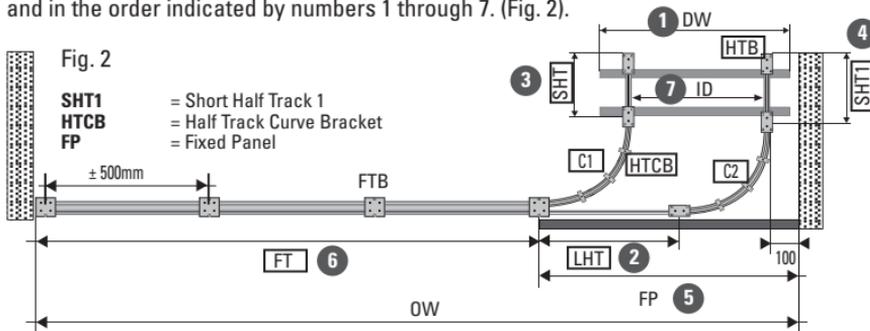
OW =     DT =     nD =

<b>1</b>	$DW = \frac{OW - 3nD - 7}{nD}$	$DW = \frac{\text{ } - \text{ } - 7}{\text{ }} = \text{ }$
<b>2</b>	$ID = DW - 150$	$ID = \text{ } - 150 = \text{ }$
<b>3</b>	$SHT = 85nD + 50 + \frac{DW \times DT}{447.36}$	$SHT = \text{ } + 50 + \frac{\text{ } \times \text{ }}{447.36} = \text{ }$
<b>4</b>	$DHT = \frac{ID - 308}{0,707}$	$DHT = \frac{\text{ } - 308}{0,707} = \text{ }$
<b>5</b>	$LHT = SHT + DW + 152$	$LHT = \text{ } + \text{ } + 152 = \text{ }$
<b>6</b>	$FT = OW - LHT - 110$	$FT = \text{ } - \text{ } - 110 = \text{ }$

As a first step, the N° of doors and opening divisions in equal segments must be defined.

### Parallel door stacking + fixed panel (with Kit curves 90°)

- Cut the tracks according with the following formulas, starting from the opening size and in the order indicated by numbers 1 through 7. (Fig. 2).



Formulas to calculate the length of the tracks (expressed in mm)

- Define the measurements of the opening (width and height) and the door thickness (DT).
- Then, define the number of doors (nD) dividing the opening in equal segments.

OW =     DT =     nD =

1  $DW = \frac{OW - [3(nD-1) + 10] - 250}{nD+1}$     DW =  $\frac{\text{[ ]} - \text{[ ]} - 250}{\text{[ ]}}$  =

2 LHT = DW - 127    LHT =  - 127 =

3 SHT = 85nD + 25    SHT =  + 25 =

4 SHT1 = SHT + 39    SHT1 =  + 39 =

5 FP = LHT + 530    FP =  + 530 =

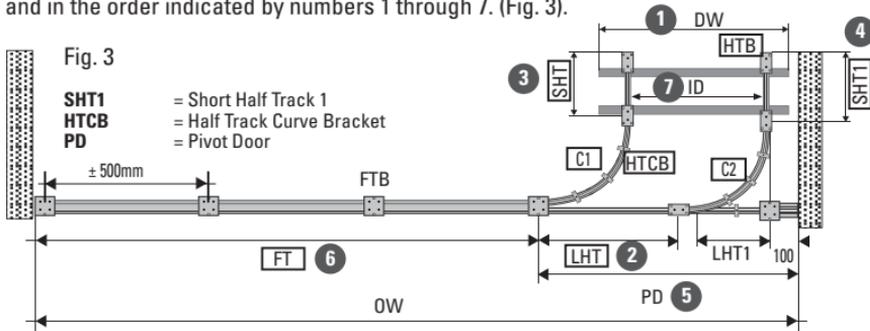
6 FT = OW - (FP + 10)    FT =  -  =

7 ID = LHT - 24    ID =  - 24 =

As a first step, the N° of doors and opening divisions in equal segments must be defined.

### Parallel door stacking + pivot door (with Kit curves 90°)

- Cut the tracks according with the following formulas, starting from the opening size and in the order indicated by numbers 1 through 7. (Fig. 3).



Formulas to calculate the length of the tracks (expressed in mm)

- Define the measurements of the opening (width and height) and the door thickness (DT).
- Then, define the number of doors (nD) dividing the opening in equal segments.

OW =  DT  nD =  PDa:  $DT \leq 45$  PDb:  $46 \leq DT \leq 80$

**1**  $DW = \frac{OW - [3(nD-1) + 10] - 250}{nD+1}$  DW =  -  - 250 =

**2**  $LHT = DW - 127$  LHT =  - 127 =

**3**  $SHT = 85nD + 25$  SHT =  + 25 =

**4**  $SHT1 = SHT + 39$  SHT1 =  + 39 =

**5**  $PDa = OW - (nD*DW) - [3(nD-1) + 15]$   
 $PDb = OW - (nD*DW) - [3(nD-1) + 20]$  PD =  -  -  =

**6**  $FT = OW - (LHT + 540)$  FT =  -  =

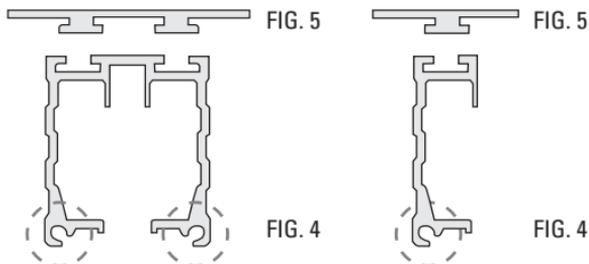
**7**  $ID = LHT - 24$  ID =  - 24 =

## Track set-up according to stacking type

### step 1

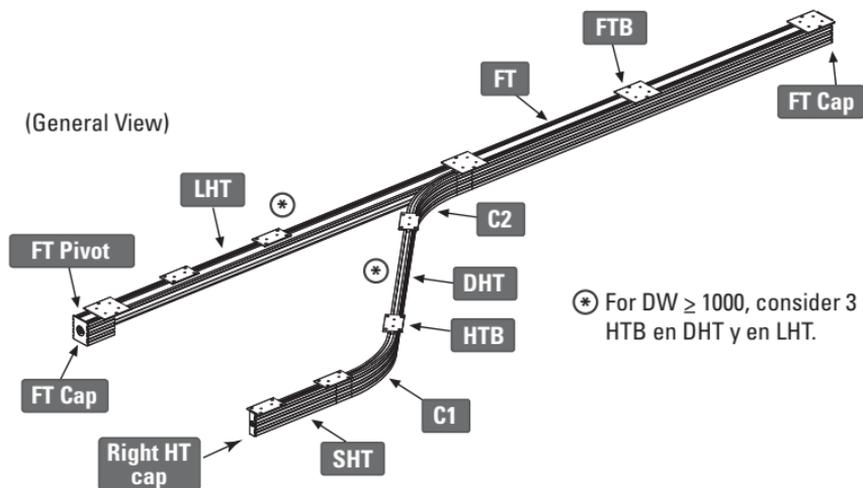
#### IMPORTANT

- The surface on which the track system is installed must be sturdy enough to withstand the weight of all the panels in the stacking area.
- Verify type of ceiling fixing point and how it could affect the structure.
- Do not install on fake ceiling.
- Verify that the floor is leveled in order to avoid subsequent problems with the movement and panel stacking.
- Set up the track system on the floor before installing on the ceiling, having the carriers already mounted. Remember to place in each track joint (Full Track or Half Track) a track pin in the lower circular channel (fig. 4), tightly inserting the striated side first.
- On the upper part, assemble the right bracket (fig. 5), leaving half of it on each side, and fixing the position with the setscrews.



**Perpendicular door stacking  
(with Kit curves 45°)**

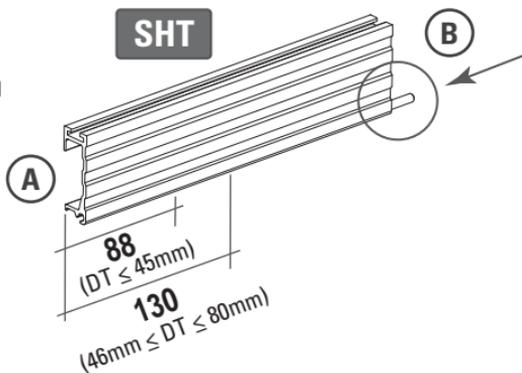
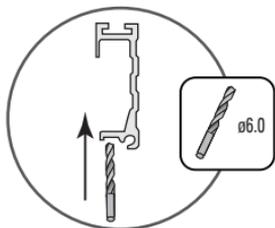
(General View)



\* For DW ≥ 1000, consider 3 HTB en DHT y en LHT.

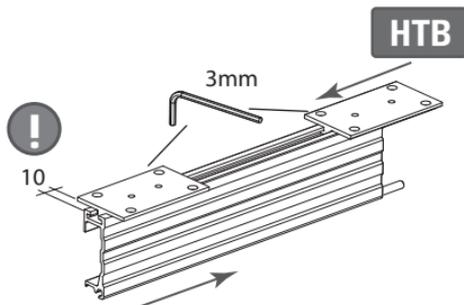
A. Drill with  $\varnothing 6\text{mm}$  drill bit the Short Half Track, at the distance indicated in the drawing, according with the door thickness.

B. Install the track pin.



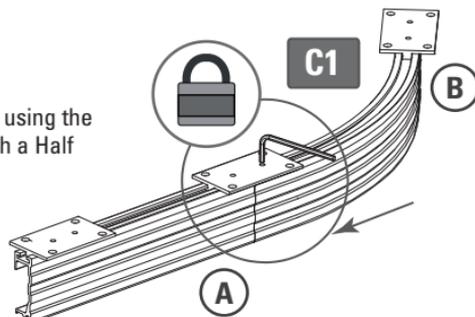
### SET-UP N°1

- Place Half Track Bracket in the Short Half Track, leaving 10mm at the edge. Fix with 3mm Allen key.



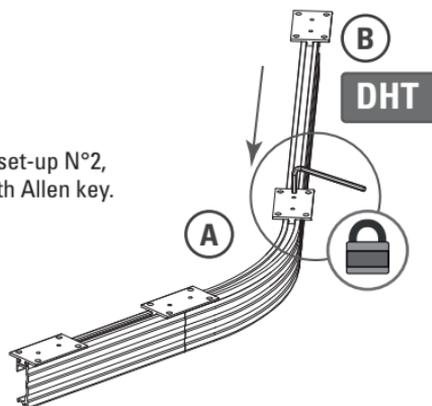
### SET-UP N°2

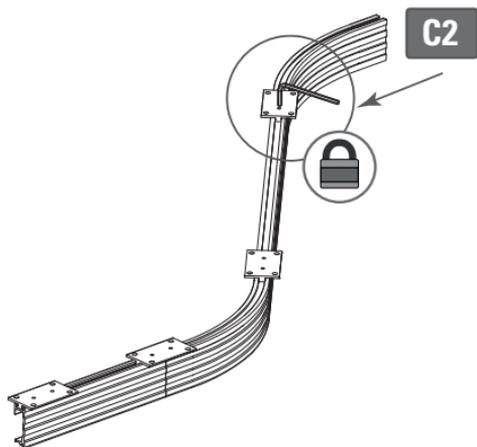
- Assemble Curve 1 with set-up N°1, using the Allen key to fix both profiles through a Half Track Bracket.
- Place Half Track Bracket on the other side.



### SET-UP N°3

- Assemble Diagonal Half Track with set-up N°2, with a Half Track Bracket and fix with Allen key.
- Place Half Track Bracket on the other side.



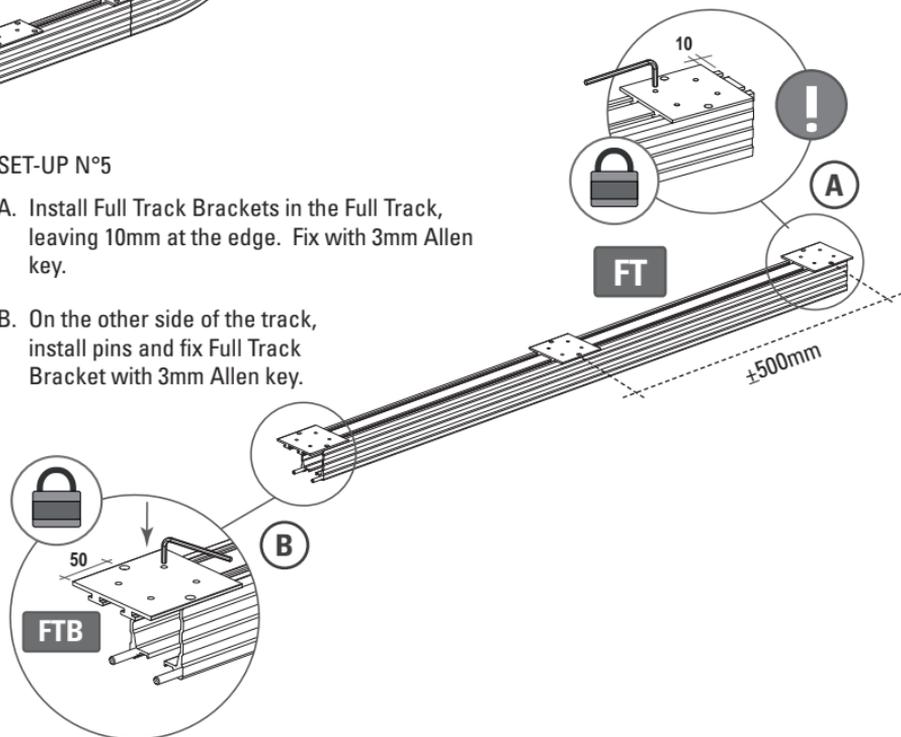


#### SET-UP N°4

- Assemble curve 2 with set-up n°3 and fix Half Track Bracket with Allen key.

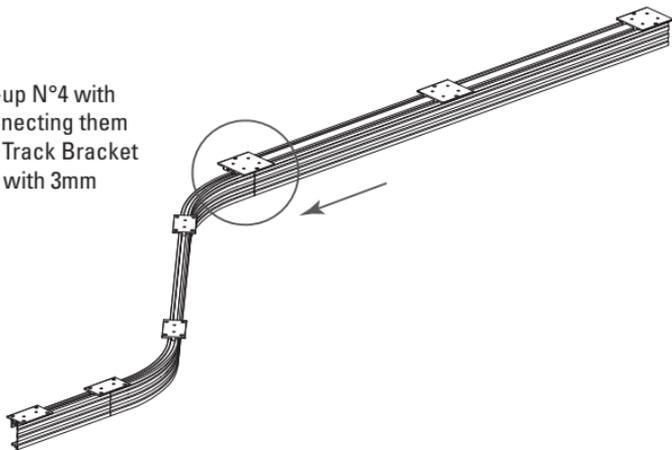
#### SET-UP N°5

- A. Install Full Track Brackets in the Full Track, leaving 10mm at the edge. Fix with 3mm Allen key.
- B. On the other side of the track, install pins and fix Full Track Bracket with 3mm Allen key.



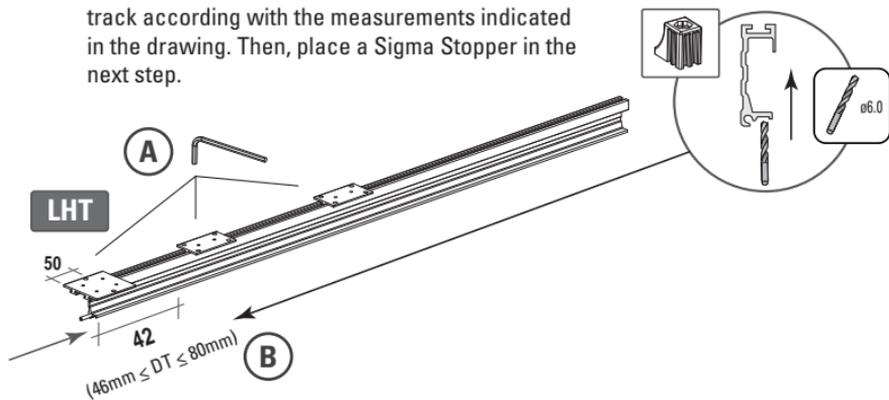
### SET-UP N°6

- Assemble set-up N°4 with set-up N°5, connecting them both with a Full Track Bracket and fixing them with 3mm Allen key.



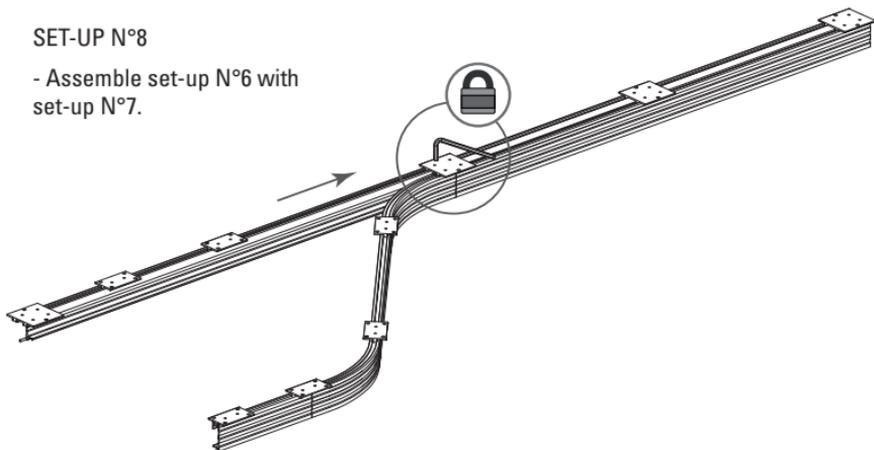
### SET-UP N°7

- Place Half Track Brackets on Long Half Track and fix with 3mm Allen key.
- Fix a Full Track Bracket at the end, and drill the track according with the measurements indicated in the drawing. Then, place a Sigma Stopper in the next step.



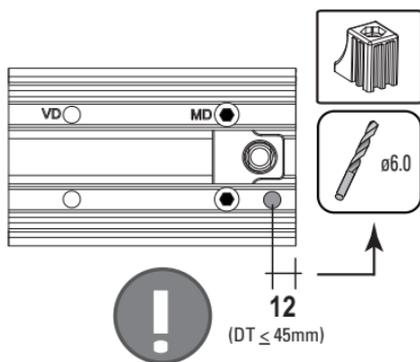
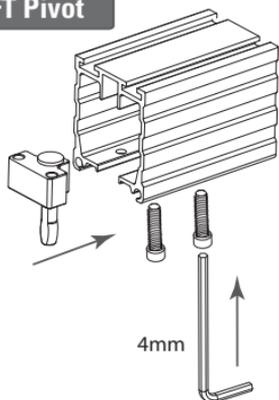
## SET-UP N°8

- Assemble set-up N°6 with set-up N°7.



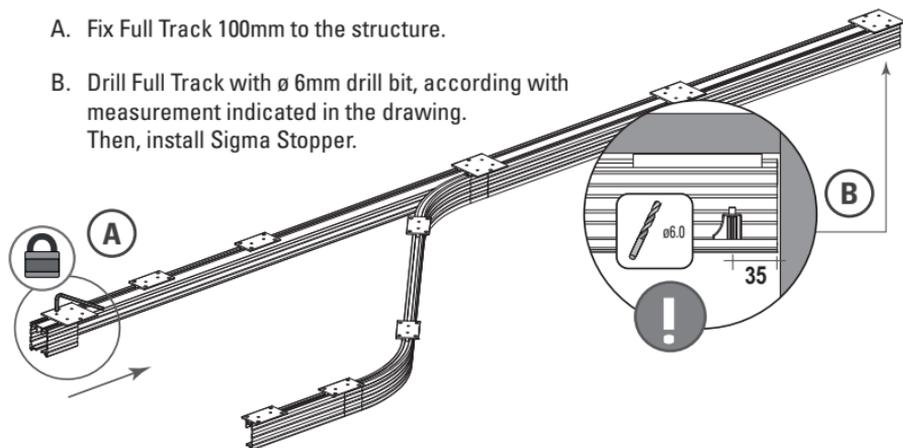
- Once the main structure has been set up, the upper pivot set of the Pivot Door MD Kit must be inserted in the 100mm Full Track of the Kit Track Pivot Door Sigma 45°, and fix its bolts with 4mm Allen key.  
- Then, drill and insert Sigma Stopper.

## FT Pivot

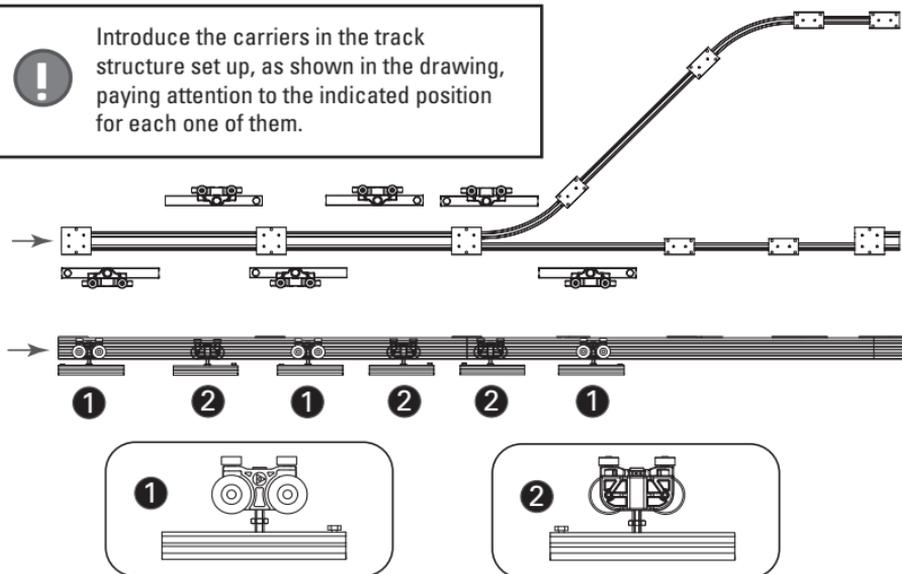


A. Fix Full Track 100mm to the structure.

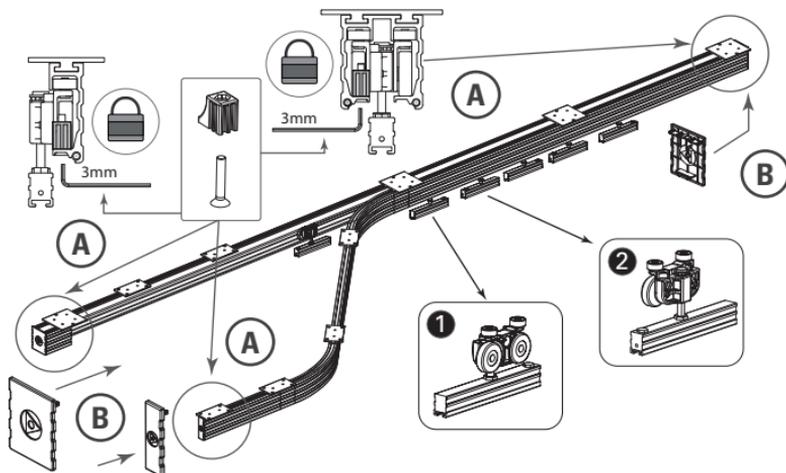
B. Drill Full Track with  $\varnothing 6\text{mm}$  drill bit, according with measurement indicated in the drawing. Then, install Sigma Stopper.



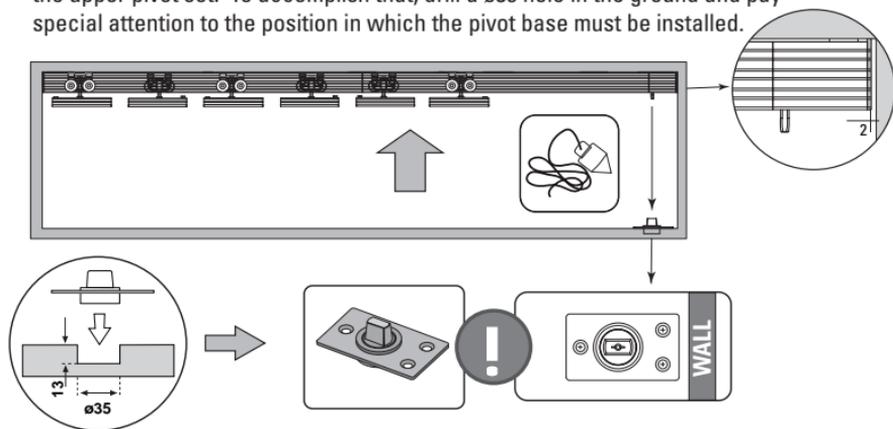
Introduce the carriers in the track structure set up, as shown in the drawing, paying attention to the indicated position for each one of them.



- A. Fix Sigma Stoppers at the end of the tracks with 3mm Allen key.
- B. Place Sigma Track Caps for a better finishing.

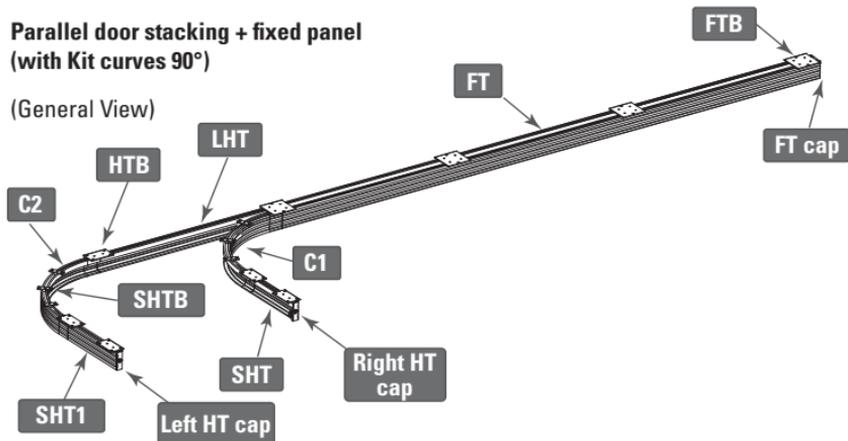


- Fix track structure to the ceiling.
- With the help of a plumb line, fix the bearing pivot base in the same axis as the upper pivot set. To accomplish that, drill a  $\varnothing 35$  hole in the ground and pay special attention to the position in which the pivot base must be installed.



**Parallel door stacking + fixed panel  
(with Kit curves 90°)**

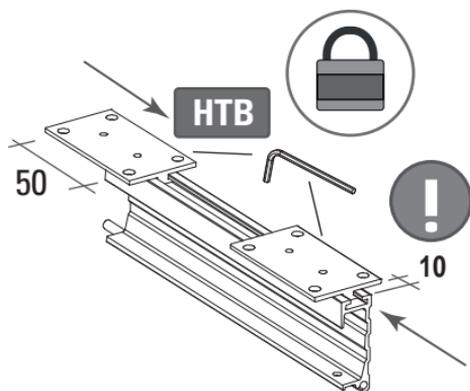
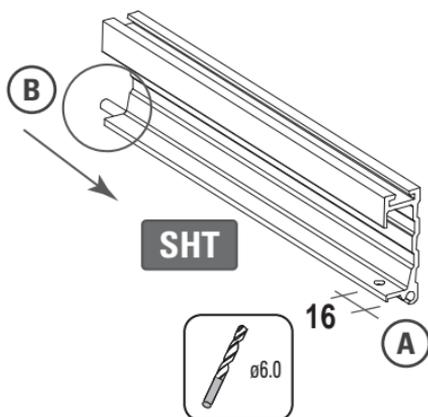
(General View)



- A. Drill with a  $\varnothing$  6mm drill bit the Short Half Track, at the distance indicated in the drawing.
- B. Place track pin.

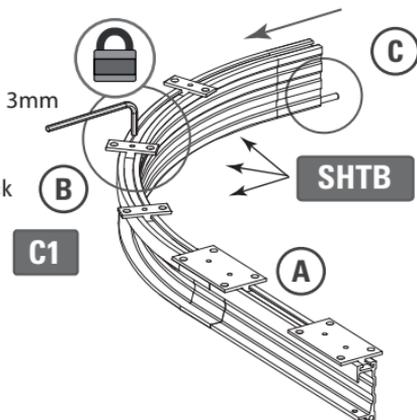
**SET-UP N°1**

- Place half Track Brackets in the Half Track, leaving 10mm at the edge. Fix with 3mm Allen key.



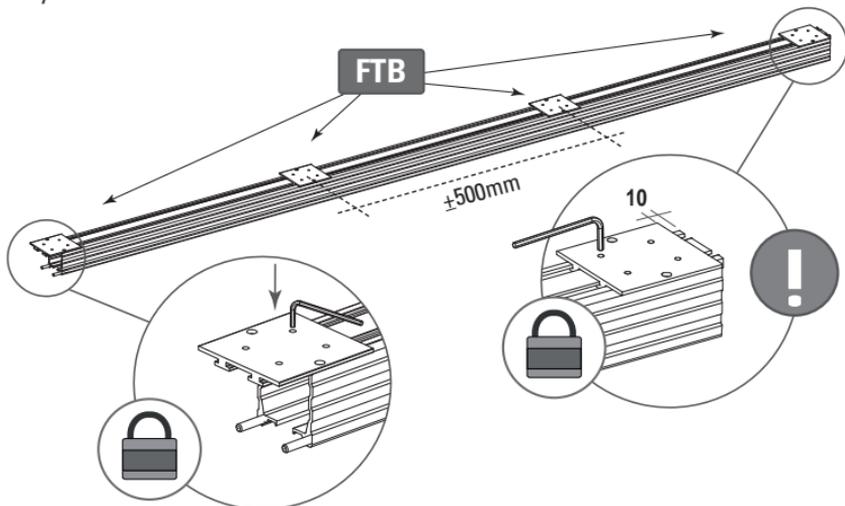
## SET-UP N°2

- A. Assemble Curve 1 with set up N°1, fixing the Half Track Bracket.
- B. In the curve, fix three 20mm Half Track Brackets with Allen key.
- C. At the edge of the curve, install a track pin.



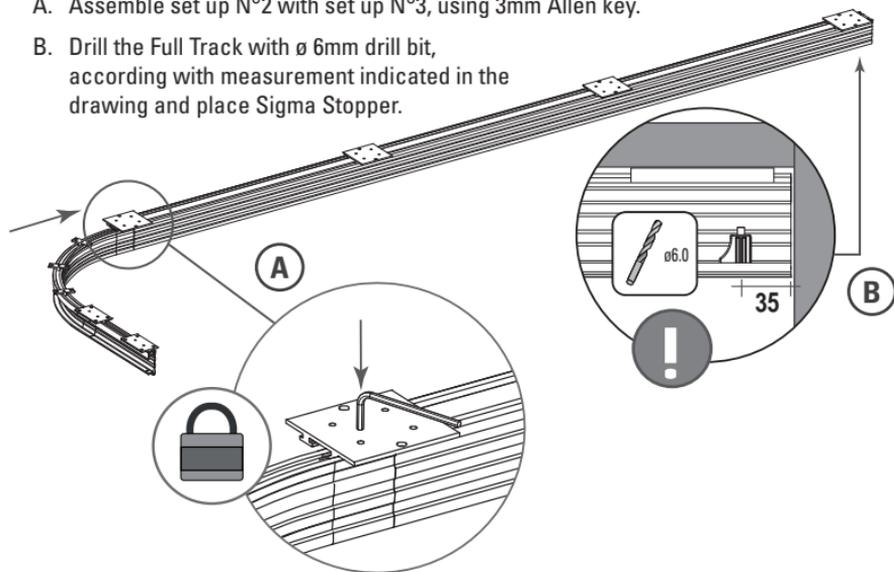
## SET-UP N°3

- Place Full Track Brackets in the Full Track, leaving 10mm at the edge. Fix with 3mm Allen key.



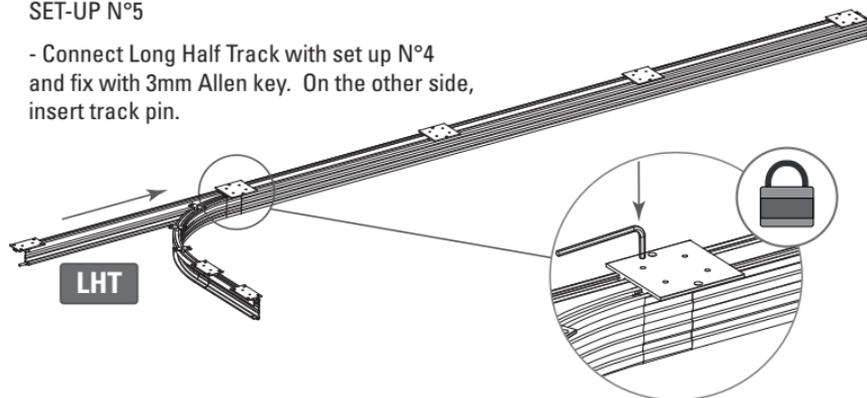
#### SET-UP N°4

- A. Assemble set up N°2 with set up N°3, using 3mm Allen key.
- B. Drill the Full Track with  $\varnothing 6\text{mm}$  drill bit, according with measurement indicated in the drawing and place Sigma Stopper.

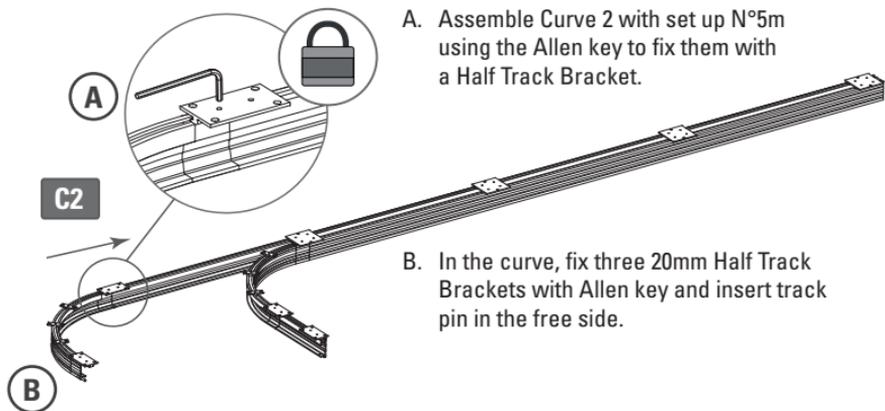


#### SET-UP N°5

- Connect Long Half Track with set up N°4 and fix with 3mm Allen key. On the other side, insert track pin.



## SET-UP N°6

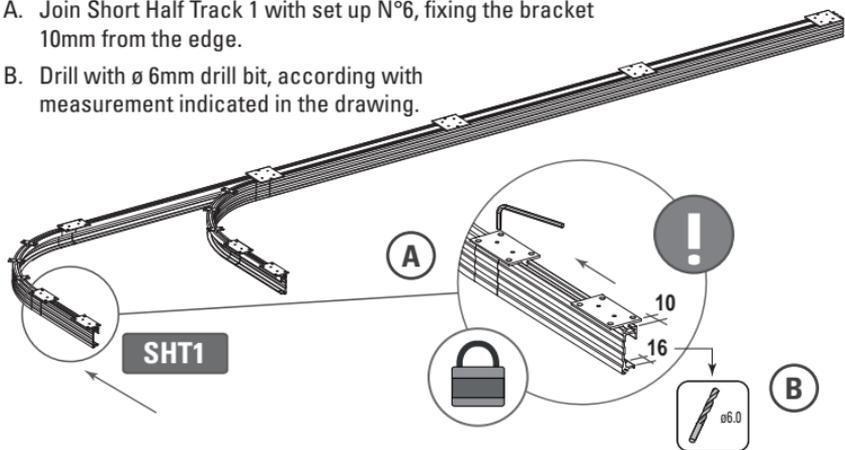


A. Assemble Curve 2 with set up N°5m using the Allen key to fix them with a Half Track Bracket.

B. In the curve, fix three 20mm Half Track Brackets with Allen key and insert track pin in the free side.

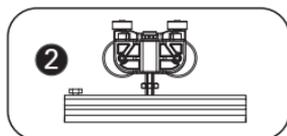
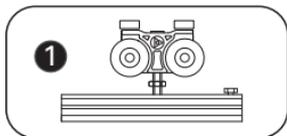
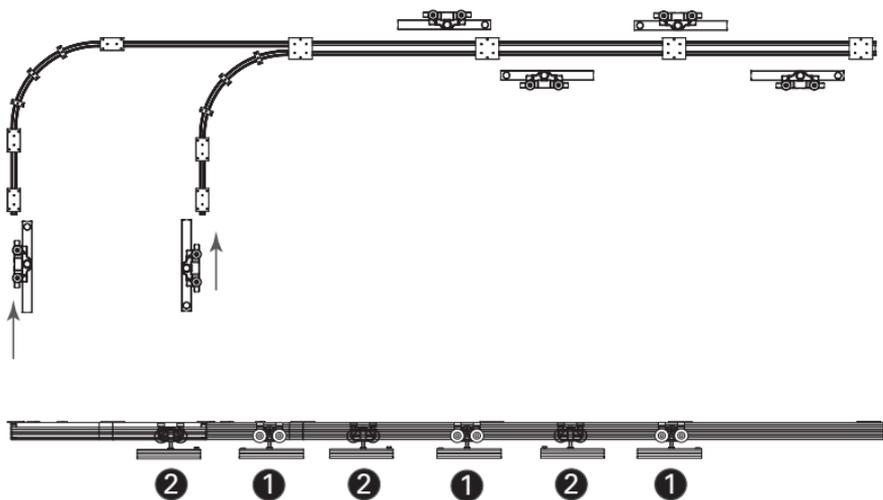
## SET-UP N°7

- Join Short Half Track 1 with set up N°6, fixing the bracket 10mm from the edge.
- Drill with  $\varnothing 6\text{mm}$  drill bit, according with measurement indicated in the drawing.

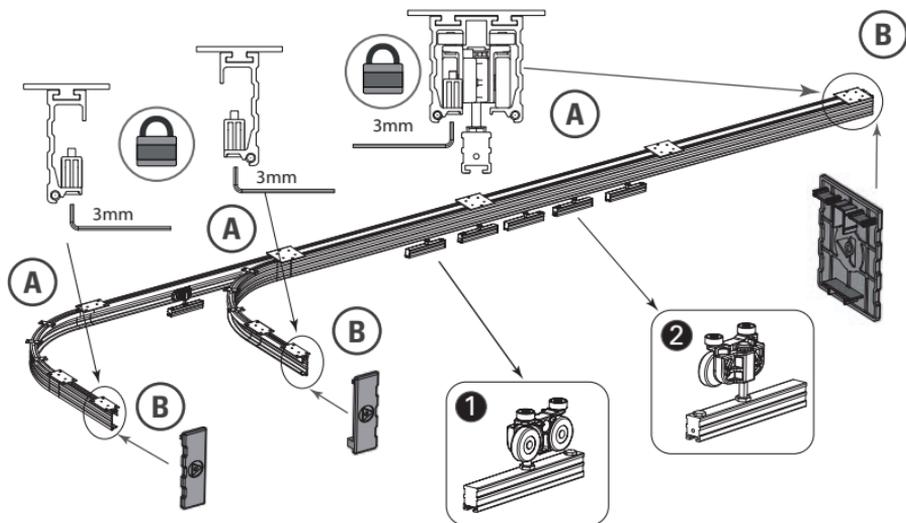




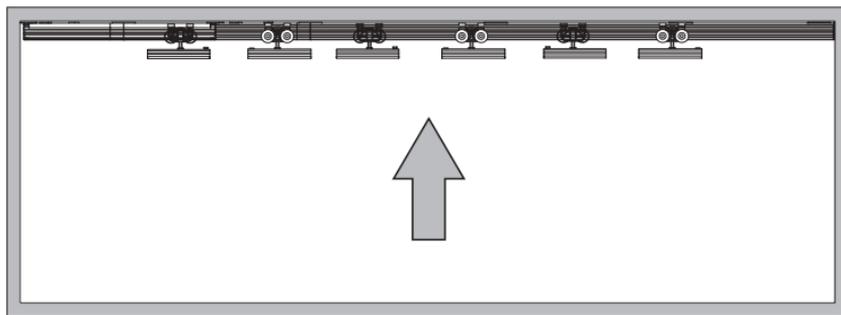
Introduce the carriers in the track structure set up, as shown in the drawing, paying attention to the indicated position for each one of them.



- A. Fix Sigma Stoppers, at the track edges with 3mm Allen key.
- B. Place Sigma Track Caps for a better finishing.

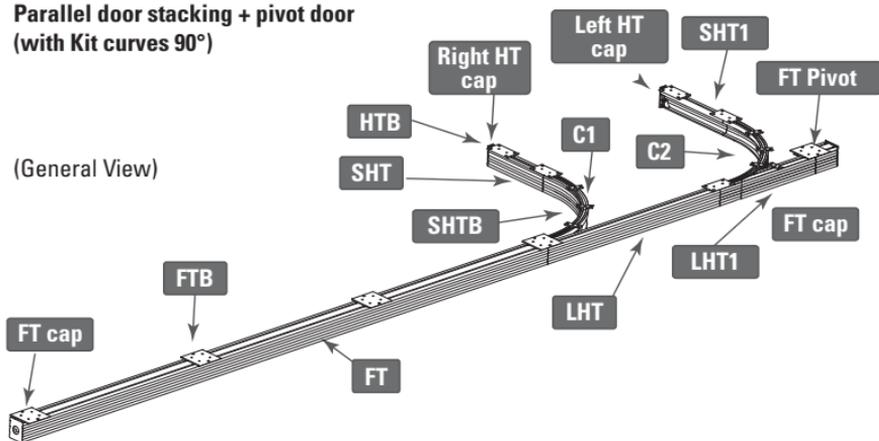


- Fix track structure to the ceiling.



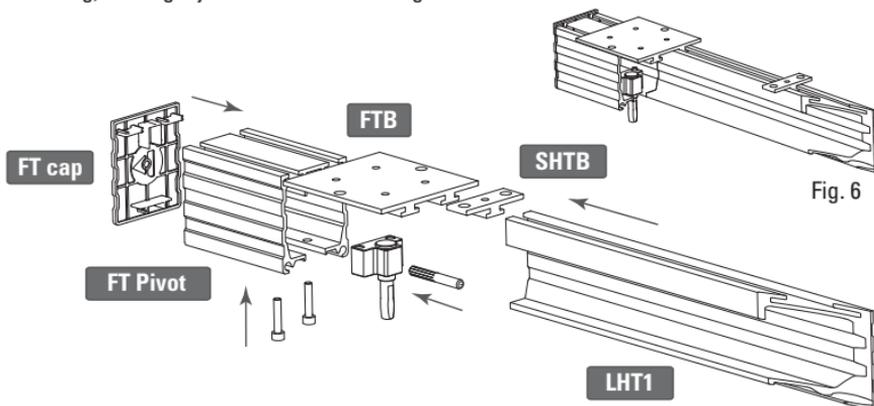
**Parallel door stacking + pivot door  
(with Kit curves 90°)**

(General View)

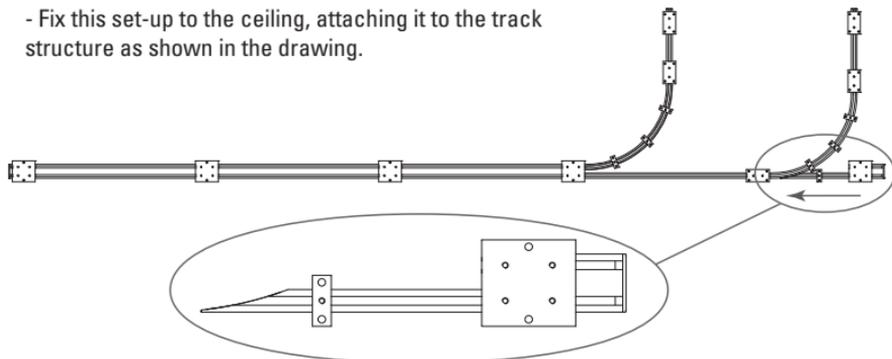


**- Follow the same procedure as in parallel door stacking track set up + fixed panel (go to page 48), and then, continue with the following steps.**

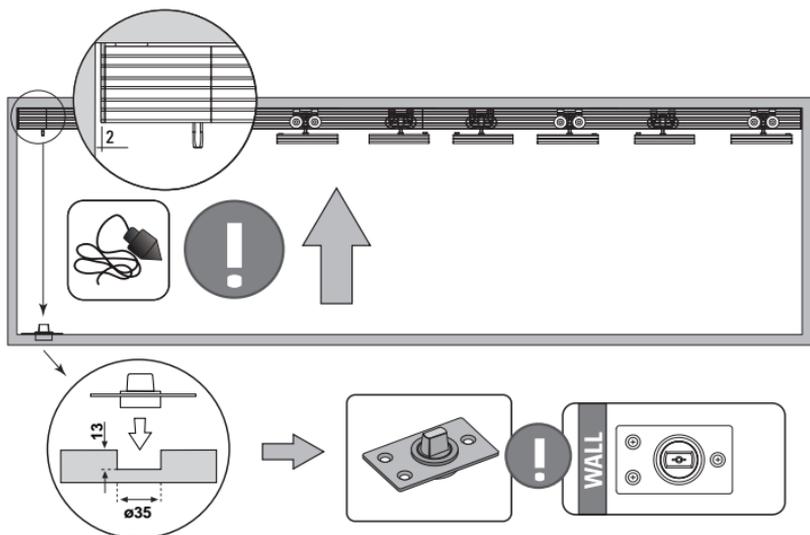
- Assemble the components of the Kit Track Pivot Door Sigma 90° as shown in the drawing, leaving it just as it is shown in figure 6.



- Fix this set-up to the ceiling, attaching it to the track structure as shown in the drawing.



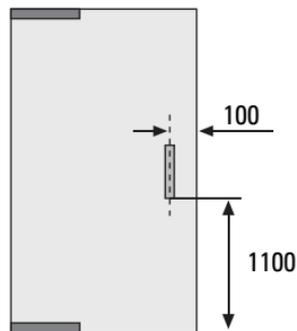
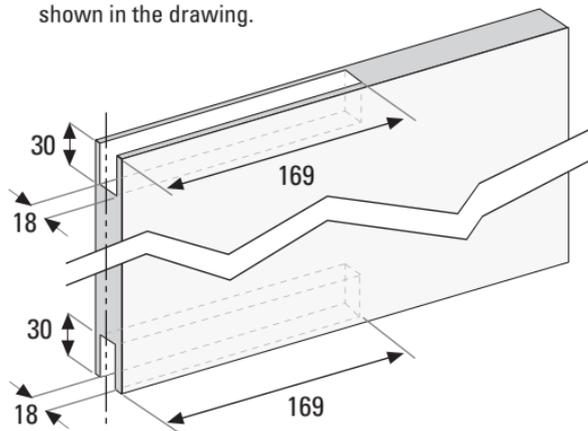
- With the help of a plumb line, fix the bearing pivot base in the same axis as the upper pivot set. To accomplish that, drill a  $\varnothing 35$  hole in the ground and pay special attention to the position in which the pivot base must be installed.



## step 2

**PIVOT DOOR Set Up**

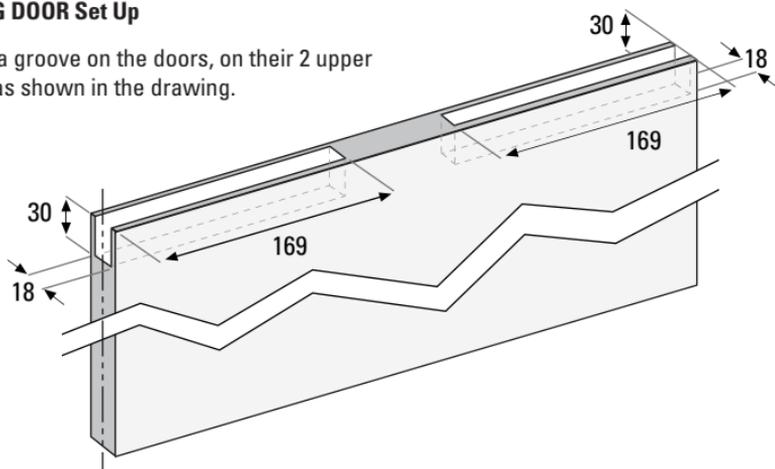
- Make a groove on the top and the bottom part of the door, according to the measurements shown in the drawing.



Referential measurement of door handle installation (not included in the kit)

**SLIDING DOOR Set Up**

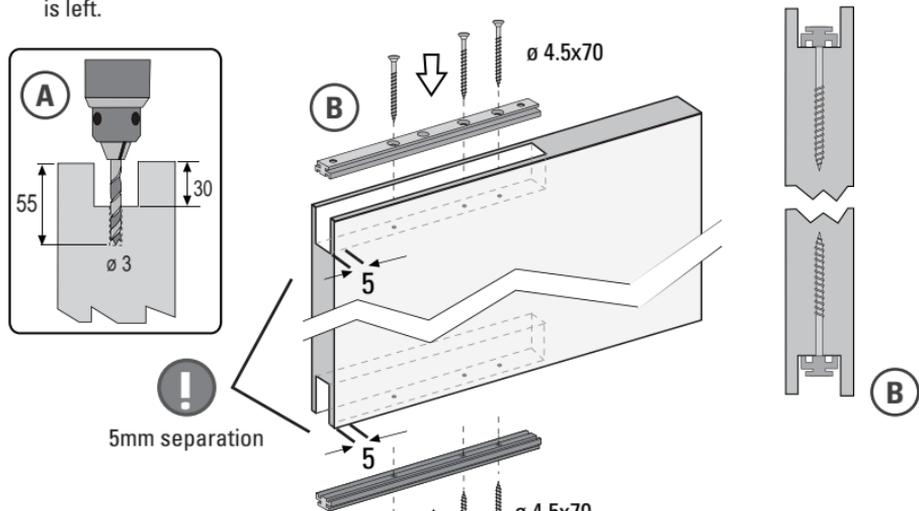
- Make a groove on the doors, on their 2 upper edges, as shown in the drawing.



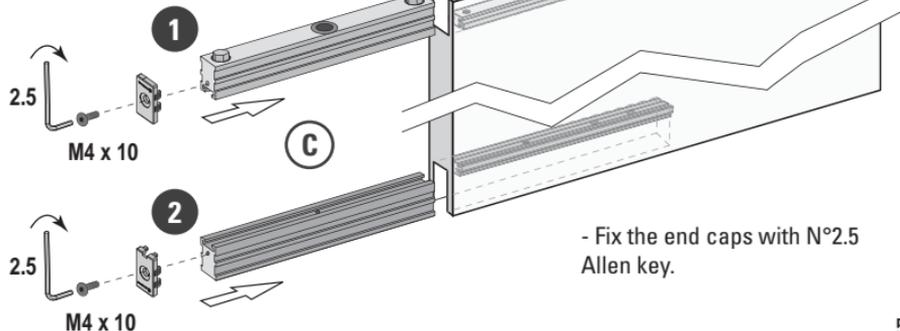
## Pivot door set up and mounting

### step 3

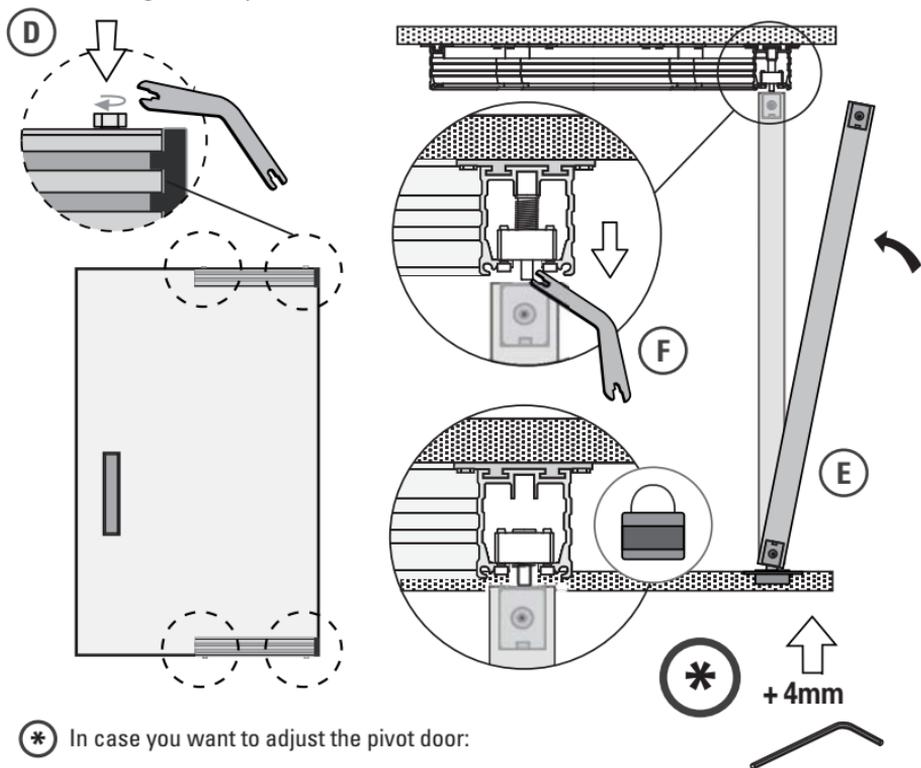
- Use  $\varnothing 3\text{mm}$  drill bit to drill the holes that will allow you to install the mounting plates.
- Place the mounting plates in the door which has been set-up, both up and down, and fix with  $\varnothing 4.5 \times 70$  screws, making sure 5mm of separation from the edge of the door is left.



- Insert the upper pivot mobile plates (1) and lower pivot mobile plates (2), top and bottom respectively, fitting them with the mounting plates.



- D. Fix the mobile plates with Segmenta key.
- E. Mount the door, fitting the lower pivot mobile plate with the bearing pivot base, and then, plumb.
- F. Insert the upper pivot set inside the upper pivot mobile plate, helping yourself with the Segmenta key in order to leave it fixed.



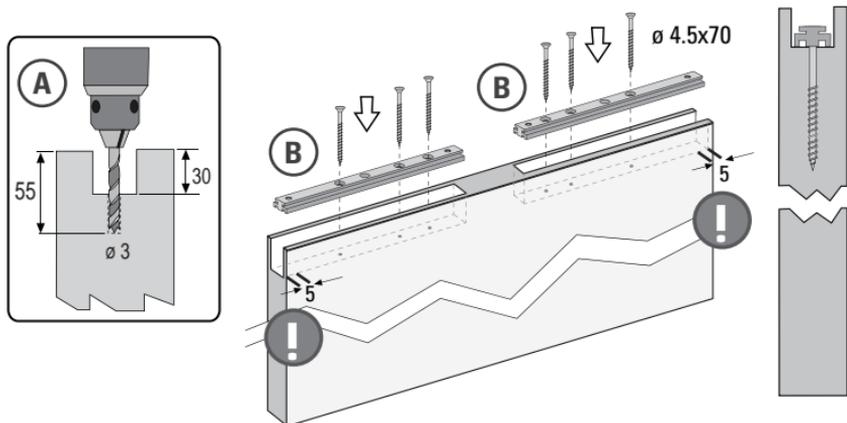
**\*** In case you want to adjust the pivot door:

1. Loosen the mobile plate fixation bolt.
2. Dismount the door from the upper pivot and lower pivot mobile plates.
3. Turn the door and adjust the setscrew lower pivot mobile plate with the 3mm Allen key.
4. Mount door on the mobile plates and tighten the fixation bolt.

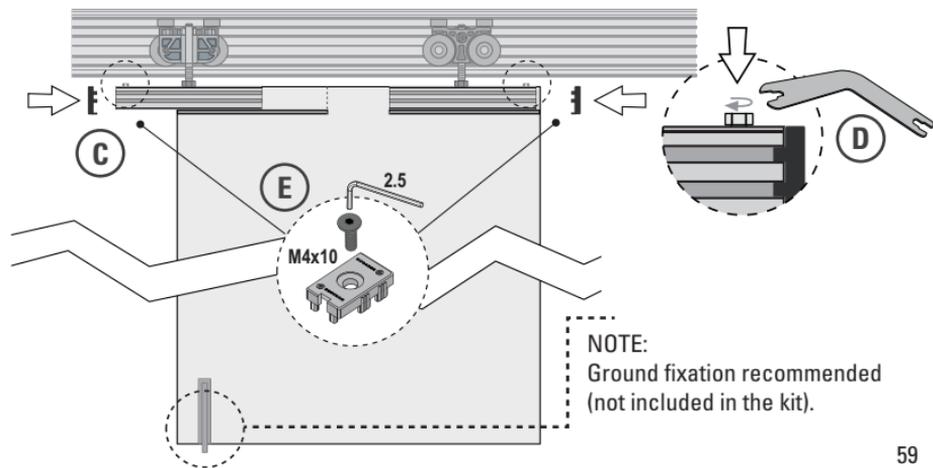
## Sliding doors set up and mounting

### step 4

- A. Use  $\varnothing 3\text{mm}$  drill bit to drill the holes that will allow you to install the mounting plates.
- B. Place the mounting plates on the set up door, on both sides, and fix with  $\varnothing 4.5 \times 70$  screws, making sure 5mm of separation from the edge of the door is left.



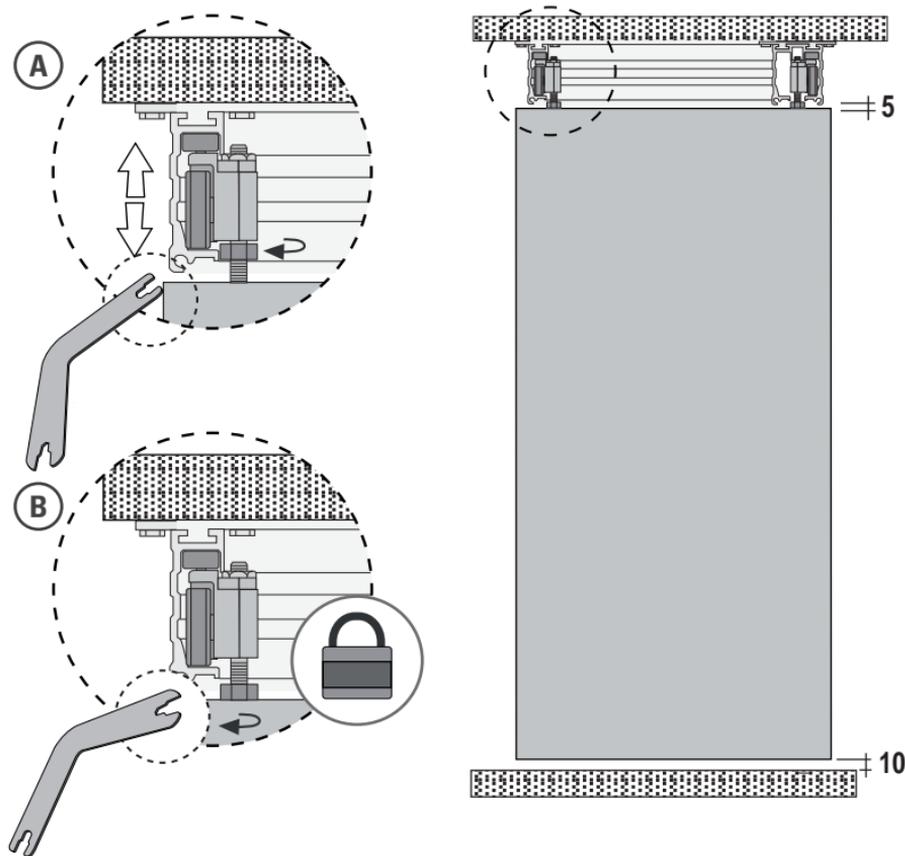
- C. Place the carrier mobile plates on the mounting plates.
- D. Fix the mobile plates with Segmenta key.
- E. Fix the end caps with 2.5mm Allen key.



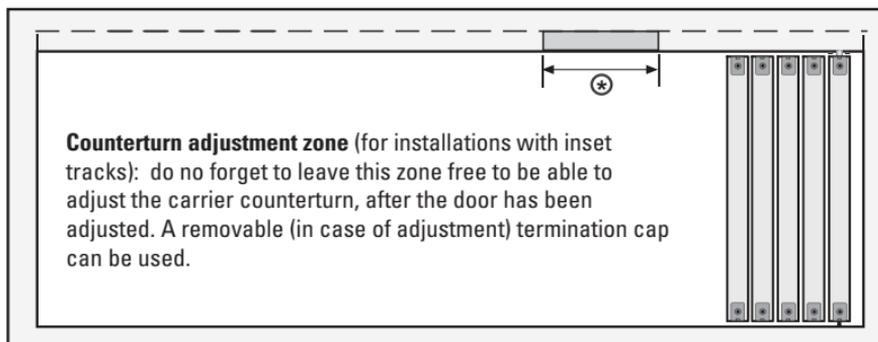
## Sliding doors height adjustment

### step 5

- A. Adjust the height of the door adjusting the carrier bolt with the Segmenta key, in order to leave a gap over 5mm and under 10mm.
- B. With the other side of the Segmenta key, adjust the carrier counterturn to keep it from deregulating.

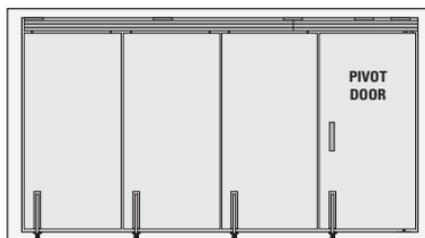


## Installation with inset track – stacked

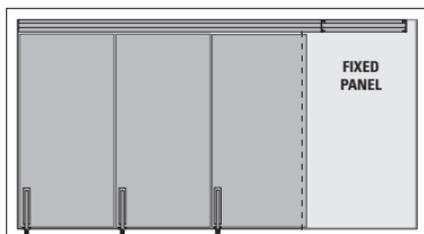


## GROUND INSTALLATION

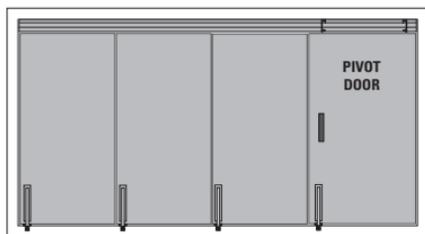
When all doors are mounted, adjusted and in their final position, it is advised to install on the ground the inset door latches for each one of them.



**Sigma MD OC - Kit curves 45°**



**Sigma MD OC - Kit curves 90° + Fixed panel**



**Sigma MD OC - Kit curves 90° + Pivot door**

## índice

SIGMA MD OC é um sistema deslizante sanfonado para portas de madeira de até 120 Kg, que permite empilhar as portas para ter uma abertura total do vão. O sistema fica oculto na porta, o que permite apresentar painéis limpos sem ferragens aparentes. Ao combinar com o Kit Porta Pivotante MD, é possível incorporar uma porta de passagem.

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- 90 Passo 5: Regulagem da altura das portas deslizantes

**\*TODAS AS MEDIDAS ESTÃO INDICADAS EM MILÍMETROS**

## Dados gerais e cálculo para tamanho de portas



CAPACIDADE DE CARGA  
POR PORTA



PESO MÁXIMO DA  
ÁREA DE EMPILHAMENTO



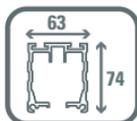
ESPESSURA  
DAS PORTAS



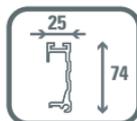
LARGURA  
DAS PORTAS



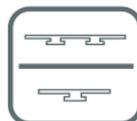
QUANTIDADE DE PESSOAS  
NECESSÁRIAS PARA INSTALAÇÃO



TRILHO  
COMPLETO

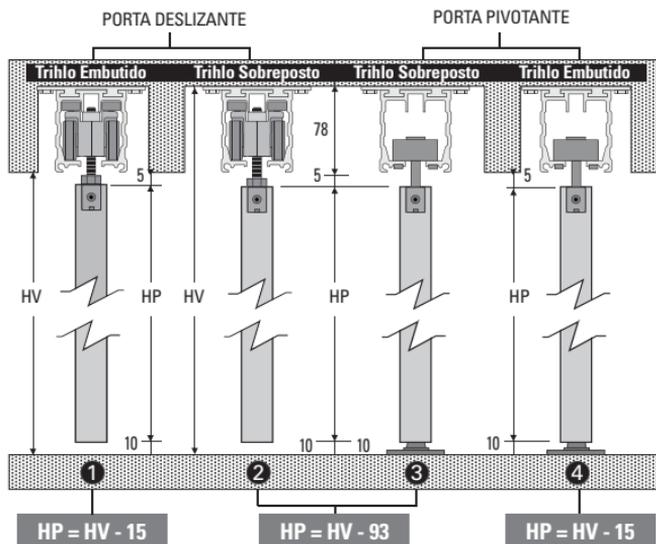


MEIO TRILHO

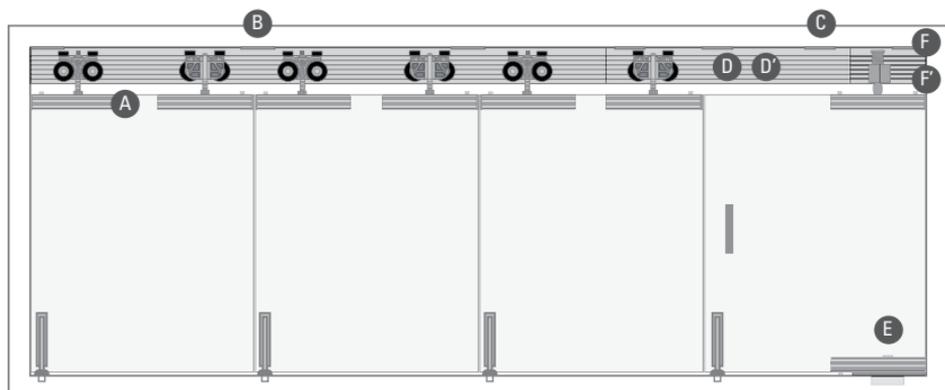


CONECTOR TRILHO COMPLETO  
CONECTOR MEIO TRILHO

## Cálculo para altura de portas



## Detalhes de partes e peças



### A KIT CARROS SIGMA MD OC

2	Carros Sigma MD OC	
2	Suporte móvel dos carros	
2	Bases fixas	
2	Tampas das caixa móveis	
1	Chave Segmenta	
1	Chave Allen 2.5mm	
1	Chave Allen 3mm	
2	Parafusos	
6	Parafusos	

### B CONECTOR TRILHO COMPLETO

1	Conector trilho completo	
---	--------------------------	--

### C KIT CONECTORES MEIO TRILHO

2	Conectores meio trilho	
---	------------------------	--

### D KIT CURVAS 45° SIGMA

1	Curva C1 45°	
1	Curva C2 45°	
8	Passadores	
3	Batente Sigma	
4	Tampas para trilhos Sigma	
3	Parafusos	

### D' KIT CURVAS 90° SIGMA

1	Curva C1 90°	
1	Curva C2 90°	
8	Passadores	
3	Batente Sigma	
6	Conector meio trilho 20mm	
4	Tampas para trilhos Sigma	
3	Parafusos	

**E** KIT PORTA PIVOTANTE MD

2	Bases fixas	
1	Caixa móvel do pivô	
1	Caixa móvel do quício	
1	Conjunto pivô	
1	Quício rolamento	
2	Tampas das caixa móveis	
1	Alinhador	
1	Chave Segmenta	
1	Chave Allen 2.5mm	
1	Chave Allen 3mm	
6	Parafusos	
2	Parafusos	

**F** KIT TRILHO PORTA PIVOTANTE SIGMA 45°

1	Trilho completo 100mm	
1	Conector trilho completo	
1	Chave Allen 3mm	
1	Chave Allen 4mm	
2	Parafusos	

**F'** KIT TRILHO PORTA PIVOTANTE SIGMA 90°

1	Trilho completo 100mm	
1	MRL1	
1	Conector trilho completo	
1	Conector meio trilho 20mm	
1	Passador	
1	Chave Allen 3mm	
1	Chave Allen 4mm	
2	Parafusos	

**IMPORTANTE**

O sistema de empilhamento perpendicular (curvas de 45°) considera sempre uma porta pivotante de passagem entre ambos os espaços, desta maneira não é necessário ter que empilhar todo o sistema para transitar entre os espaços.

No sistema de empilhamento paralelo (curvas de 90°) pode-se prescindir desta porta e utilizar um painel fixo.

Para as configurações de empilhamento perpendicular + porta pivotante (curva 45°) é necessário, também o "Kit porta pivotante MD" e o "Kit trilho porta pivotante Sigma 45°".

Somente para a configuração de empilhamento paralelo + porta pivotante se deve agregar o "Kit trilho porta pivotante Sigma 90°".

\*FIXADORES AO PISO E PUXADORES NÃO INCLUIDOS.

**FERRAMENTAS NECESSÁRIAS**

Furadeira	
Brocas ø3 / ø6 / ø35	
Prumo	
Chave Philips	
Trena	

## Configuração dos trilhos conforme o tipo de empilhamento

Como primeiro passo, se deve definir o nº de portas e dividir o vão em segmentos iguais cuidando para que a largura das portas esteja dentro das larguras recomendadas.

### Empilhamento perpendicular de portas (com Kit curvas perpendiculares 45°)

- Neste tipo de configuração perpendicular deve-se verificar a largura da porta (AP) na tabela onde se mostra a largura máxima e mínima. A largura deve estar dentro do intervalo permitido (mín. – máx.) sempre respeitando a quantidade de portas definidas. Se a largura esta fora do intervalo (mín. – máx.) deve-se alterar a quantidade de portas no vão.

Nº portas *(nP)	Largura mín. da porta (mm)	Largura max. da porta (mm)	Largura mín. do vão (mm)	Largura máx. do vão (mm)	*** Peso máximo do sistema (kg)
3	700	1.500	$2.100 + 3(np-1)$	$4.500 + 3(np-1)$	120 (np-1)
4	700	1.500	$2.800 + 3(np-1)$	$6.000 + 3(np-1)$	120 (np-1)
5	752	1.500	$3.758 + 3(np-1)$	$7.500 + 3(np-1)$	120 (np-1)
6	837	1.500	$5.020 + 3(np-1)$	$9.000 + 3(np-1)$	120 (np-1)
7	922	1.500	$6.451 + 3(np-1)$	$10.500 + 3(np-1)$	120 (np-1)
8	1.007	1.500	$8.053 + 3(np-1)$	$12.000 + 3(np-1)$	120 (np-1)
9	1.092	1.500	$9.825 + 3(np-1)$	$13.500 + 3(np-1)$	120 (np-1)
10	1.177	1.500	$11.766 + 3(np-1)$	$15.000 + 3(np-1)$	120 (np-1)

\* = Número de portas.

\*\* Todas as medidas estão em mm.

\*\*\* O peso máximo do sistema não considera a porta pivotante, porque a mesma é montada sobre o quício hidráulico.

### Corte de trilhos e identificação de peças

- Cortar os trilhos segundo as seguintes fórmulas, a partir do tamanho do vão e na ordem indicada pelos números de 1 a 6 (Fig. 1)

<b>AP</b>	= largura porta
<b>MRC</b>	= meio trilho curto
<b>MRD</b>	= meio trilho diagonal
<b>MRL</b>	= meio trilho longo
<b>RC</b>	= trilho completo
<b>C1</b>	= curva 1
<b>C2</b>	= curva 2
<b>CRC</b>	= conector trilho completo
<b>CMR</b>	= conector meio trilho
<b>nP</b>	= Nº portas
<b>AV</b>	= largura do vão
<b>DR</b>	= medida interior entre MRC e MRL
<b>e</b>	= espessura da porta

#### CONECTORES:

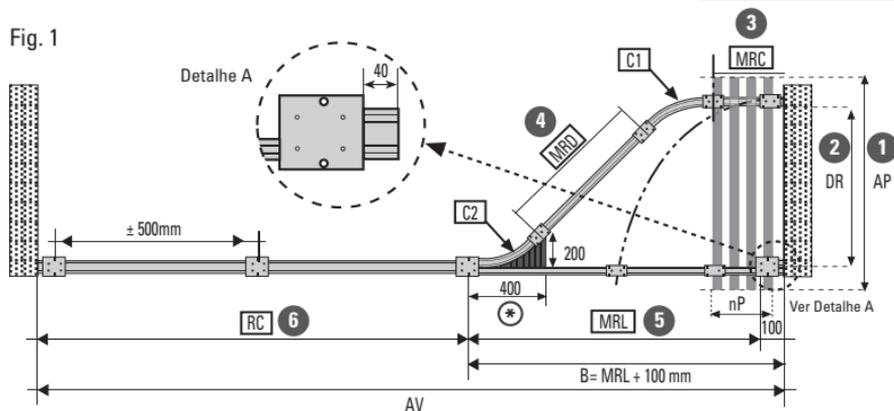
Utilize um conector de trilho (meio trilho e trilho completo) em cada união de trilhos e a cada 500mm como reforço.

**Nº CMR:** mínimo 6 unidades.

**Nº CRC:** 1 para a união C2 com RC + 1 a cada 500mm + 1 pivô superior.

\*No caso de instalações com empilhamento em ambos os extremos, dividir o vão pela metade e utilizar esta nova largura de vão para aplicar as fórmulas indicadas\*

Fig. 1



\* Zona de ajuste da contraporca (para sistema embutido): somente quando o sistema de trilhos é aplicado embutido no teto, se deve deixar uma zona livre para poder ajustar a contraporca dos carros. Pode-se aplicar uma tampa de acabamento que se pode retirar em caso de necessitar algum ajuste.

### Fórmulas para calcular o comprimento dos trilhos (expressa em mm)

- Definir as medidas do vão (altura e largura) e espessura da porta (e).
- Depois, definir a quantidade de portas (nP) dividindo o vão em segmentos iguais.

AV =  e =  nP =

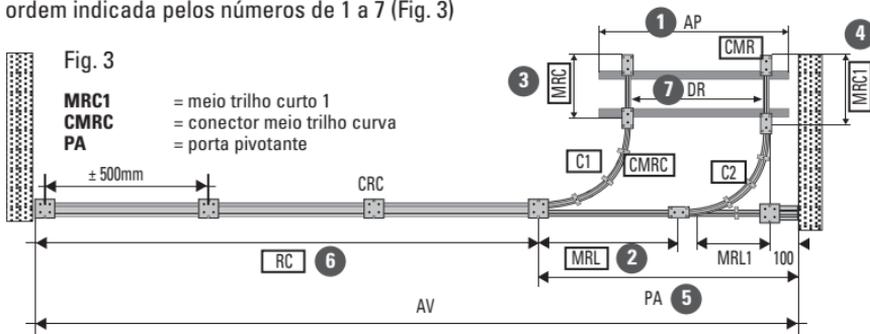
<b>1</b>	$AP = \frac{AV - 3nP - 7}{nP}$	$AP = \frac{\text{ } - \text{ } - 7}{\text{ }} = \text{ }$
<b>2</b>	$DR = AP - 150$	$DR = \text{ } - 150 = \text{ }$
<b>3</b>	$MRC = 85nP + 50 + \frac{AP \times e}{447.36}$	$MRC = \text{ } + 50 + \frac{\text{ } \times \text{ }}{447.36} = \text{ }$
<b>4</b>	$MRD = \frac{DR - 308}{0,707}$	$MRD = \frac{\text{ } - 308}{0,707} = \text{ }$
<b>5</b>	$MRL = MRC + AP + 152$	$MRL = \text{ } + \text{ } + 152 = \text{ }$
<b>6</b>	$RC = AV - MRL - 110$	$RC = \text{ } - \text{ } - 110 = \text{ }$



Como primeiro passo, se deve definir o nº de portas e dividir o vão em segmentos iguais.

### Empilhamento paralelo de portas + porta pivotante (com Kit curvas paralelas 90°)

- Cortar os trilhos segundo as seguintes fórmulas, a partir do tamanho do vão e na ordem indicada pelos números de 1 a 7 (Fig. 3)



### Fórmulas para calcular o comprimento dos trilhos (expressa em mm)

- Definir as medidas do vão (altura e largura) e espessura da porta (e).

- Depois, definir a quantidade de portas (nP) dividindo o vão em segmentos iguais.

AV =  e =  nP =  PAa: e ≤ 45 PAb: 46 ≤ e ≤ 80

**1**  $AP = \frac{AV - [3(nP-1) + 10] - 250}{nP+1}$  AP =  $\frac{\text{} - \text{} - 250}{\text{}}$  =

**2** MRL = AP - 127 MRL =  - 127 =

**3** MRC = 85nP + 25 MRC =  + 25 =

**4** MRC1 = MRC + 39 MRC1 =  + 39 =

**5** PAa = AV - (nP\*AP) - [3(nP-1) + 15]  
 PAb = AV - (nP\*AP) - [3(nP-1) + 20] PA =  -  -  =

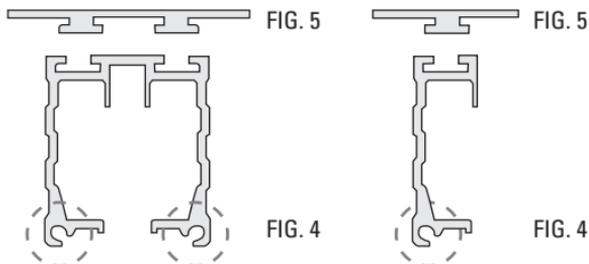
**6** RC = AV - (MRL + 540) RC =  -  =

**7** DR = MRL - 24 DR =  - 24 =

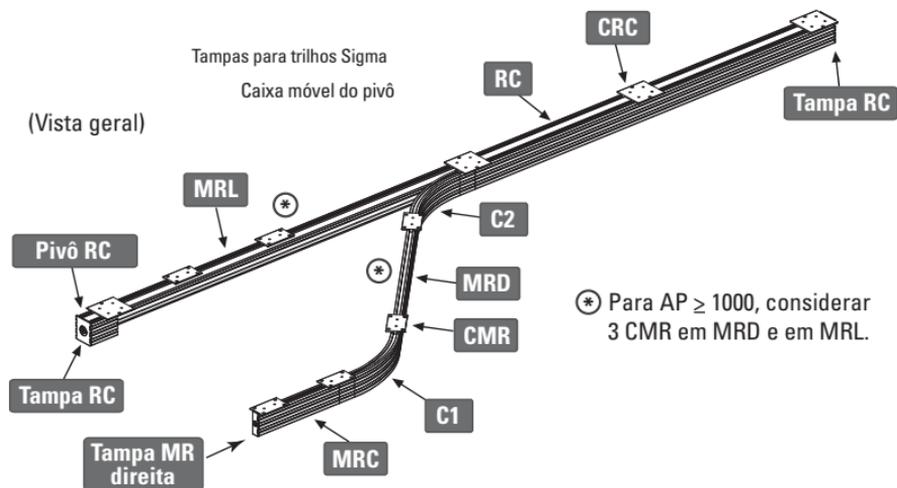
### passo 1

#### IMPORTANTE

- A superfície que receberá o sistema de trilhos deve ser suficientemente firme para suportar o peso de todas as portas em zona de empilhamento.
- Verificar o tipo de ancoragem no teto e como pode afetar a montagem da estrutura.
- Não instalar em tetos falsos.
- Certifique-se que o piso esteja nivelado para não ter problemas posteriores com a movimentação e empilhamento das portas.
- Montar o sistema de trilhos no piso e colocar os carros no mesmo antes de instalar no teto. Lembrar de aplicar em cada junção de trilho (Trilho completo ou Meio trilho) um passador estriado no canal circular inferior do trilho (fig. 4), introduzindo o lado estriado com pressão.
- Na parte superior, aplicar o conector correspondente (fig. 5) deixando uma metade de cada lado e fixando na posição com os parafusos Allen.

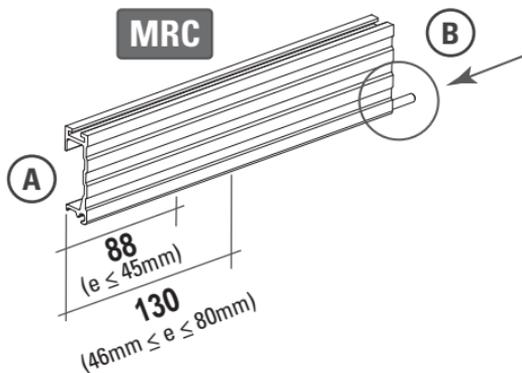
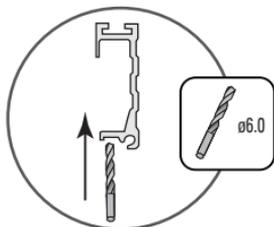


## Empilhamento perpendicular de portas (com Kit curvas perpendiculares 45°)



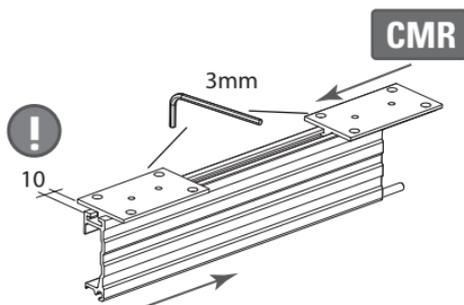
A. Perfurar com broca 6mm o Meio Trilho Curto (MRC), conforme a distância indicada no esquema segundo a espessura da porta.

B. Aplicar passador estriado.



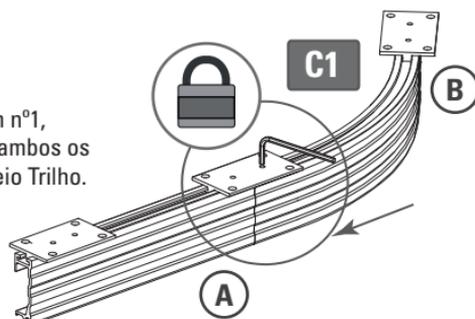
### MONTAGEM N°1

- Aplicar Conectores Meio Trilho no Meio Trilho Curto, deixando 10mm de espaço até a borda. Fixar com chave Allen 3mm.



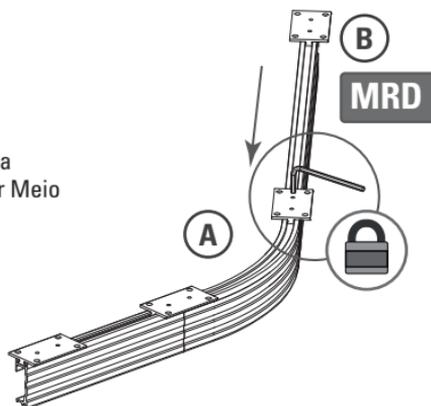
### MONTAGEM N°2

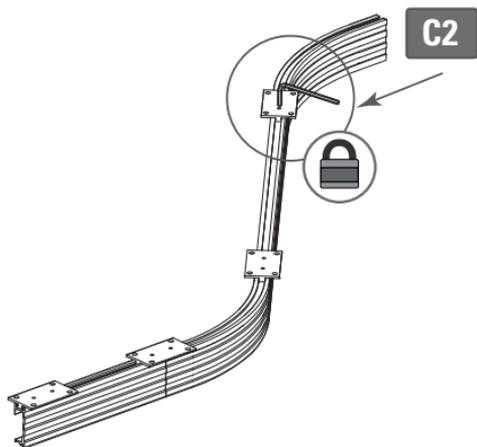
- A. Montar a Curva 1 com a Montagem n°1, utilizando a chave Allen para fixar ambos os perfis por meio de um Conector Meio Trilho.
- B. Aplicar um Conector Meio Trilho no outro extremo.



### MONTAGEM N°3

- A. Montar o Meio Trilho Diagonal com a Montagem n°2, usando um Conector Meio Trilho e fixar com chave Allen.
- B. Aplicar um Conector Meio Trilho no outro extremo.



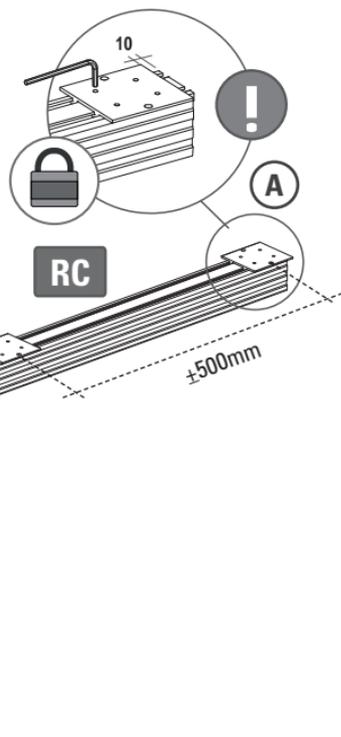


#### MONTAGEM N°4

- Montar a Curva 2 com a Montagem n°3 e fixar o Conector Meio Trilho com chave Allen.

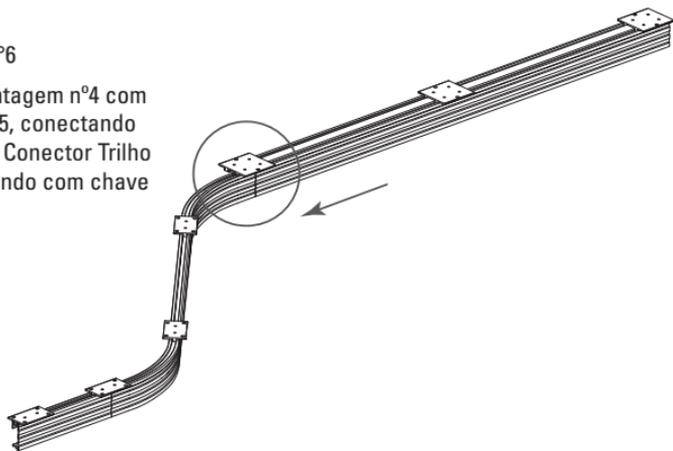
#### MONTAGEM N°5

- A. Aplicar Conectores Trilho Completo no Trilho Completo, deixando 10mm de espaço até a borda. Fixar com chave Allen 3mm.
- B. No outro extremo do trilho, aplicar passadores e fixar um Conector Trilho Completo com a chave Allen 3mm.



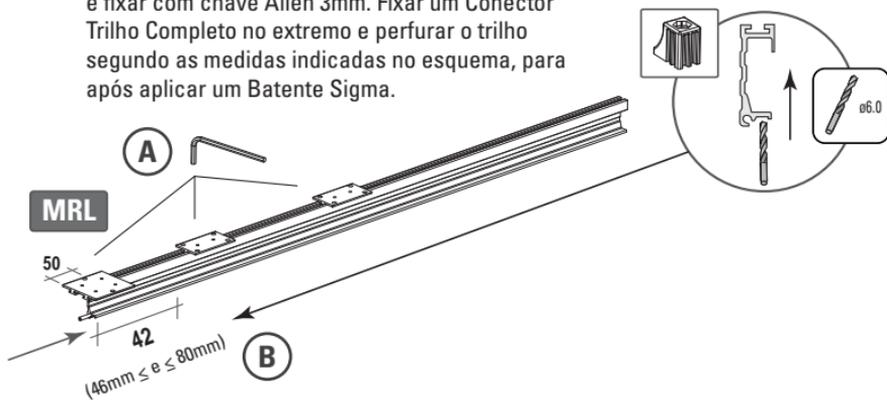
## MONTAGEM N°6

- Montar a Montagem n°4 com a Montagem n°5, conectando ambos com um Conector Trilho Completo e fixando com chave Allen 3mm.



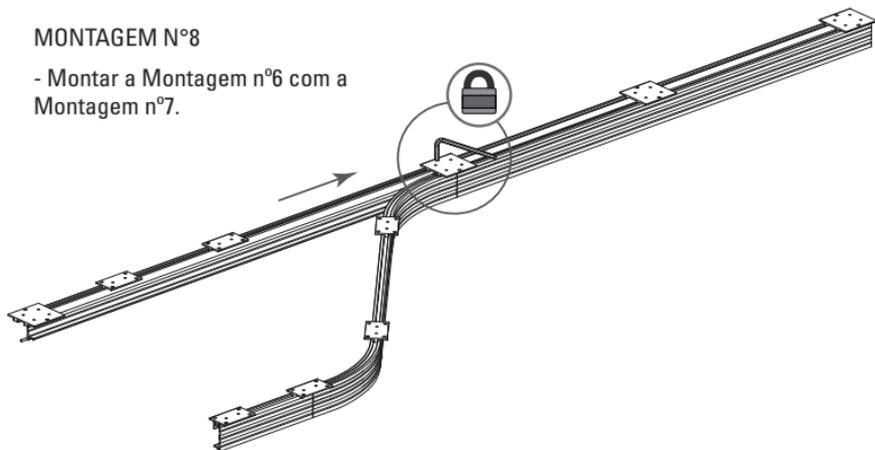
## MONTAGEM N°7

- A. Aplicar Conectores Meio Trilho no Meio Trilho Longo e fixar com chave Allen 3mm.
- B. Aplicar Conectores Meio Trilho no Meio Trilho Longo e fixar com chave Allen 3mm. Fixar um Conector Trilho Completo no extremo e perfurar o trilho segundo as medidas indicadas no esquema, para após aplicar um Batente Sigma.



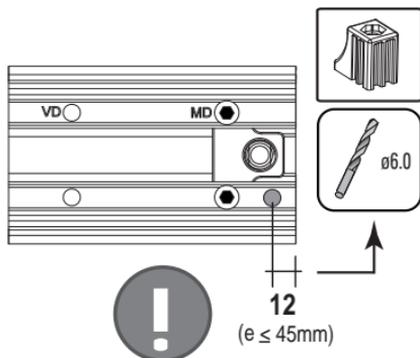
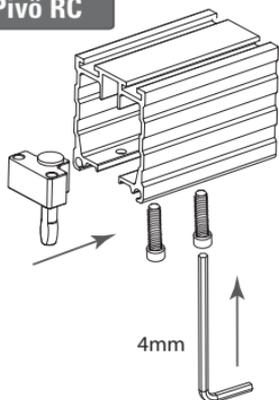
## MONTAGEM N°8

- Montar a Montagem n°6 com a Montagem n°7.



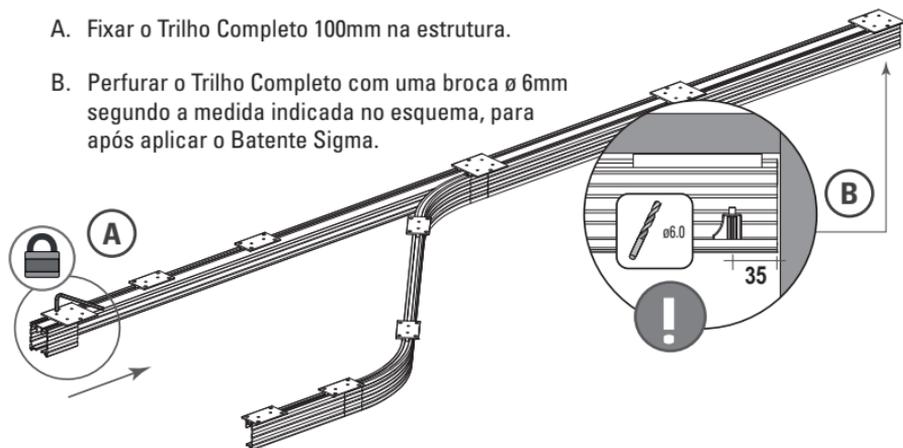
- Uma vez montada a estrutura principal, deve-se introduzir o Conjunto Pivô do "Kit porta pivotante MD" no Trilho completo 100mm do "Kit trilho porta pivotante Sigma perpendicular 45°" e fixar os parafusos com chave Allen 4mm.  
- Após, fazer um furo e montar o Batente Sigma.

## Pivô RC

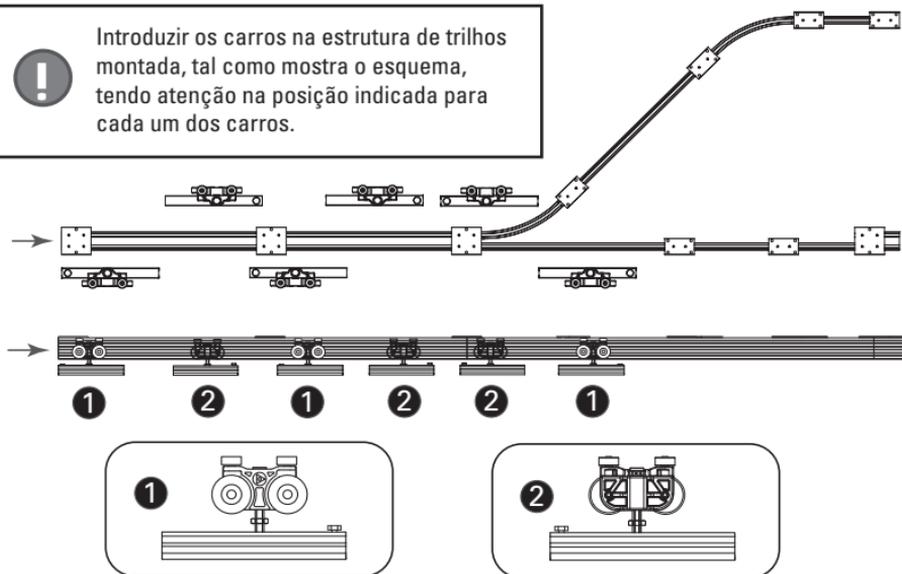


A. Fixar o Trilho Completo 100mm na estrutura.

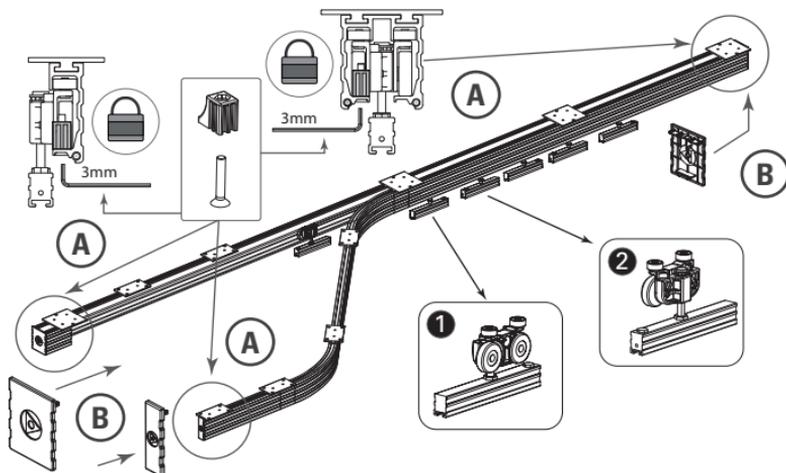
B. Perfurar o Trilho Completo com uma broca  $\varnothing 6\text{mm}$  segundo a medida indicada no esquema, para após aplicar o Batente Sigma.



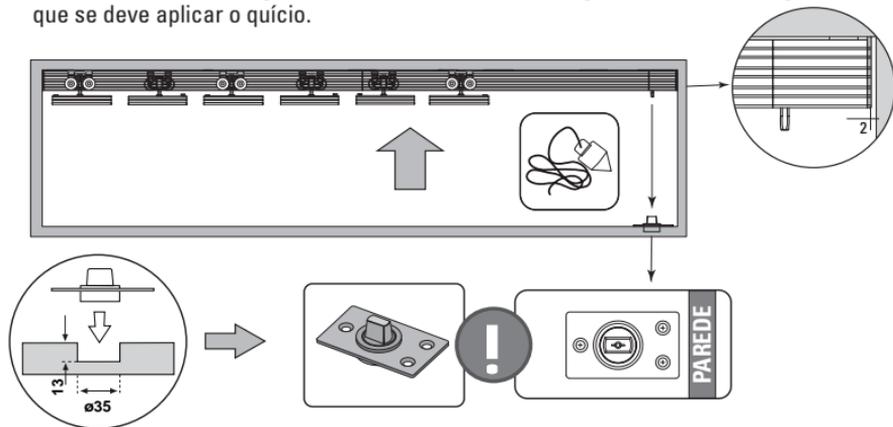
Introduzir os carros na estrutura de trilhos montada, tal como mostra o esquema, tendo atenção na posição indicada para cada um dos carros.



- A. Fixar os batentes Sigma nos extremos dos trilhos com chave Allen 3mm.
- B. Colocar as Tampas para Trilhos Sigma para um melhor acabamento.

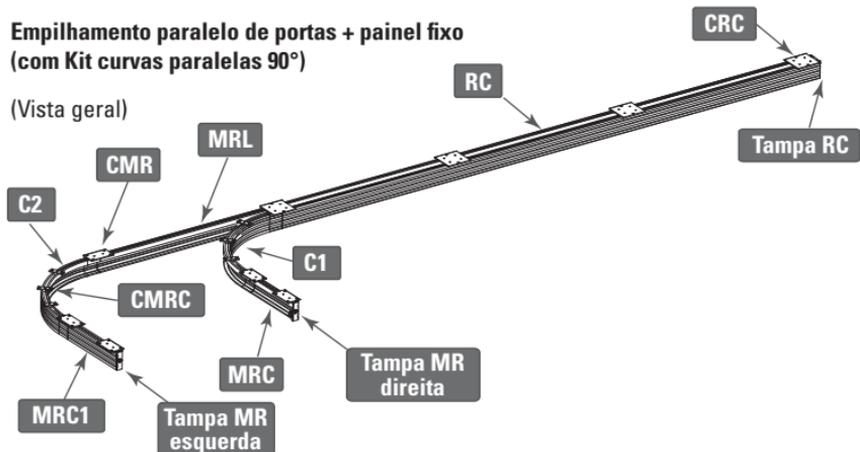


- Fixar a estrutura dos trilhos no teto.
- Com a ajuda de um prumo, fixar o quício rolamento no mesmo eixo do conjunto pivô. Fazer uma perfuração de  $\varnothing 35\text{mm}$  no piso e ter atenção especial na posição que se deve aplicar o quício.



## Empilhamento paralelo de portas + painel fixo (com Kit curvas paralelas 90°)

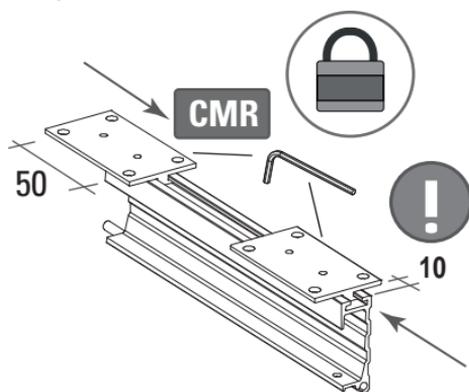
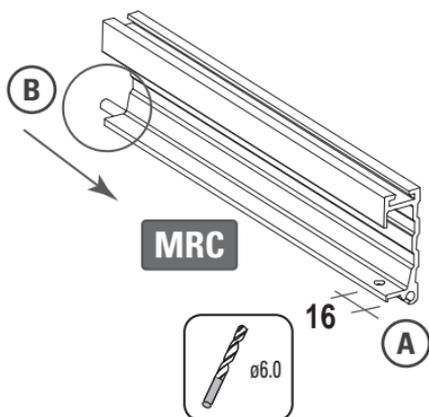
(Vista geral)



- Perfurar com uma broca  $\varnothing 6\text{mm}$  o Meio Trilho Curto, conforme a distância indicada no esquema.
- Aplicar um passador estriado.

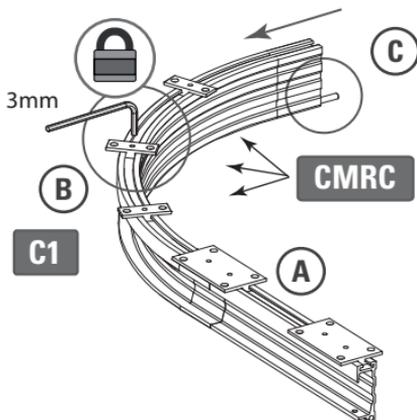
### MONTAGEM N°1

- Aplicar Conectores Meio Trilho no Meio Trilho Curto, deixando um afastamento de 10mm da borda. Fixar com chave Allen 3mm.



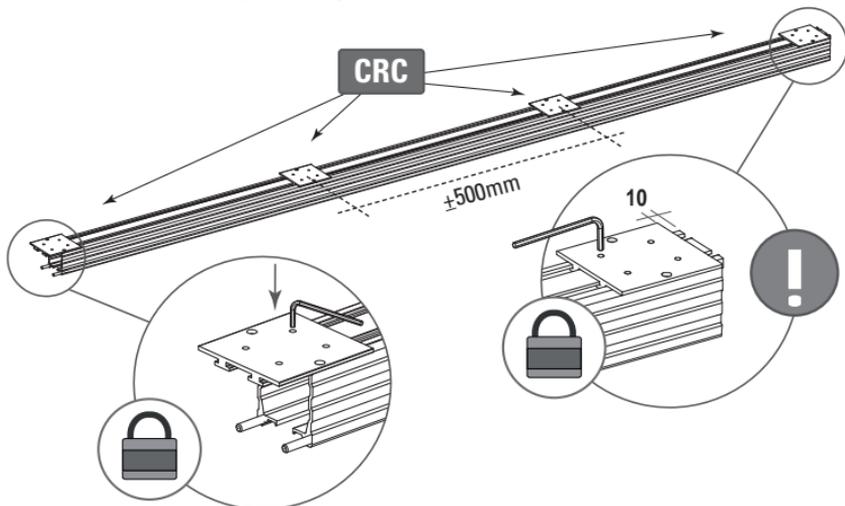
## MONTAGEM N°2

- A. Montar a Curva 1 com a Montagem n°1, fixando o Conector Meio Trilho.
- B. Na Curva, fixar 3 Conectores Meio Trilho de 20mm com a chave Allen.
- C. No extremo da curva aplicar o passador estriado.



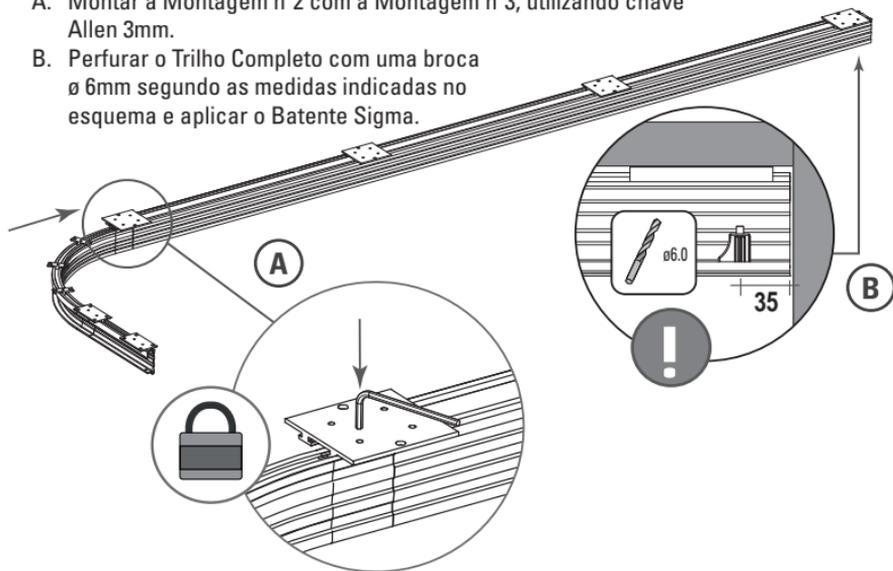
## MONTAGEM N°3

- Aplicar Conectores Trilho Completo no Trilho Completo, deixando um afastamento de 10mm da borda. Fixar com chave Allen 3mm.



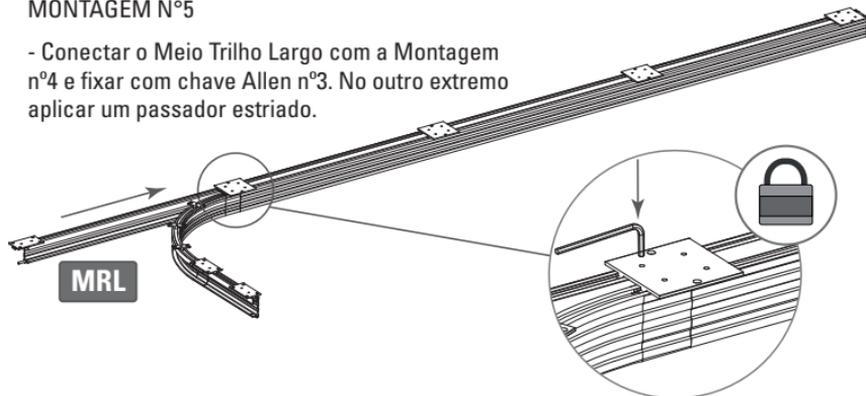
## MONTAGEM N°4

- A. Montar a Montagem n°2 com a Montagem n°3, utilizando chave Allen 3mm.
- B. Perfurar o Trilho Completo com uma broca  $\varnothing 6.0$  segundo as medidas indicadas no esquema e aplicar o Batente Sigma.

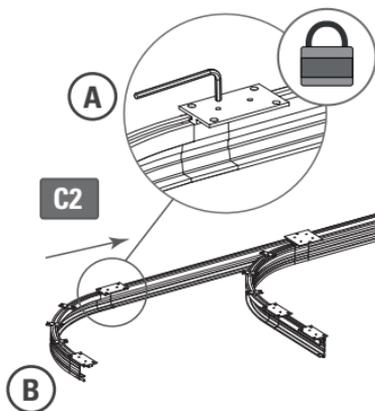


## MONTAGEM N°5

- Conectar o Meio Trilho Largo com a Montagem n°4 e fixar com chave Allen n°3. No outro extremo aplicar um passador estriado.



## MONTAGEM N°6



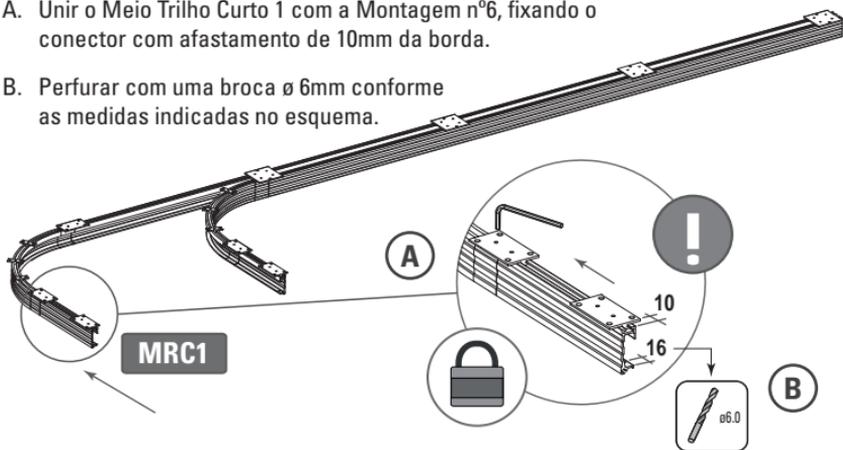
A. Montar a Curva 2 com a Montagem nº5, utilizando a chave Allen para fixar-los por meio de um Conector Meio trilho.

B. Montar a Curva 2 com a Montagem nº5, utilizando a chave Allen para fixar-los por meio de um Conector Meio trilho.

## MONTAGEM N°7

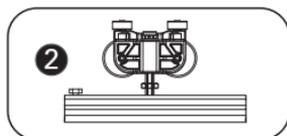
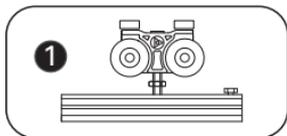
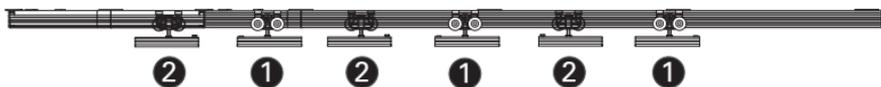
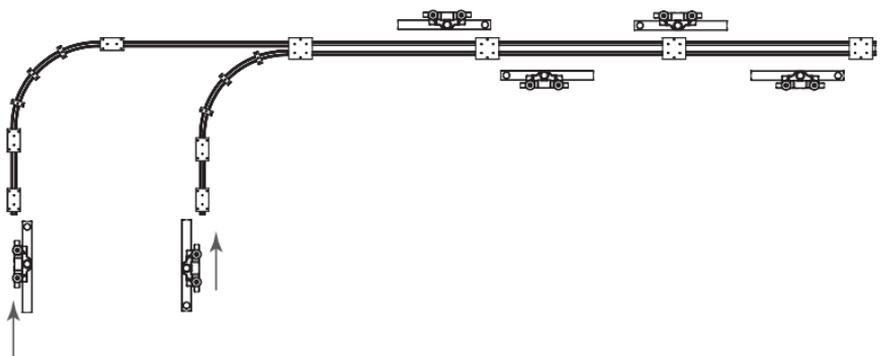
A. Unir o Meio Trilho Curto 1 com a Montagem nº6, fixando o conector com afastamento de 10mm da borda.

B. Perfurar com uma broca  $\varnothing 6\text{mm}$  conforme as medidas indicadas no esquema.

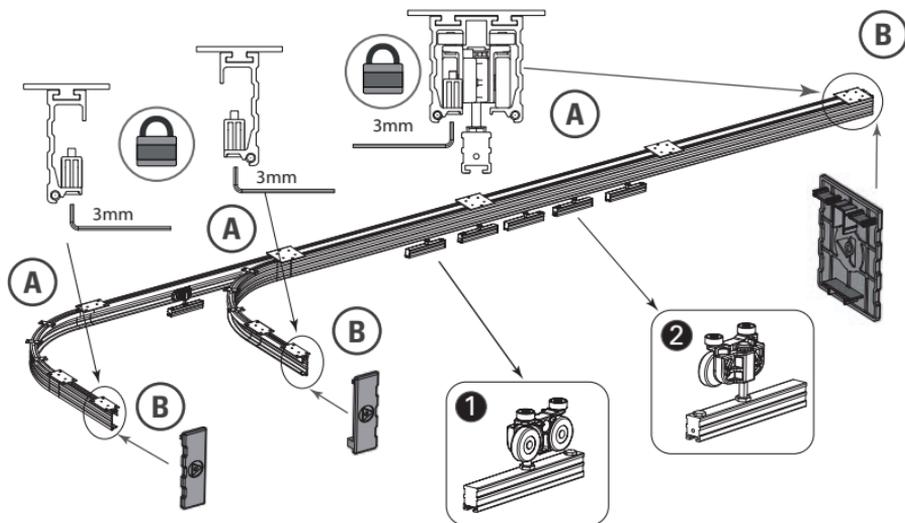




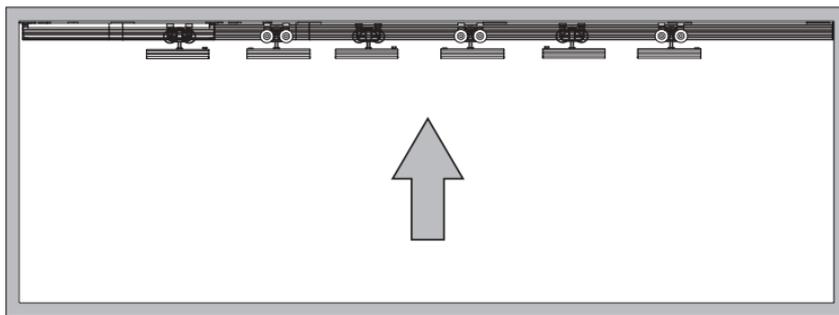
Introduzir os carros na estrutura de trilhos montada, tal como mostra o esquema, tendo atenção na posição indicada para cada um dos carros.



- A. Fixar os Batentes Sigma nos extremos dos trilhos com chave Allen 3mm.
- B. Colocar as Tampas de trilhos Sigma para um melhor acabamento.

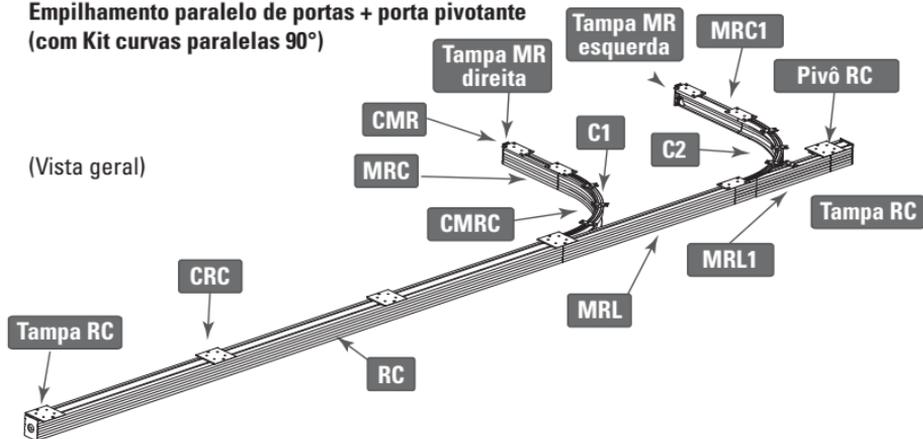


- Fixar a estrutura de trilhos no teto.



**Empilhamento paralelo de portas + porta pivotante  
(com Kit curvas paralelas 90°)**

(Vista geral)



**Seguir o mesmo procedimento que a montagem de trilhos para empilhamento paralelo de portas + painel fixo ( ver página 78) e após continuar com os passos a seguir.**

- Montar os componentes do Kit trilho porta pivotante Sigma paralelo 90° como indicado no esquema, conforme a figura 6.

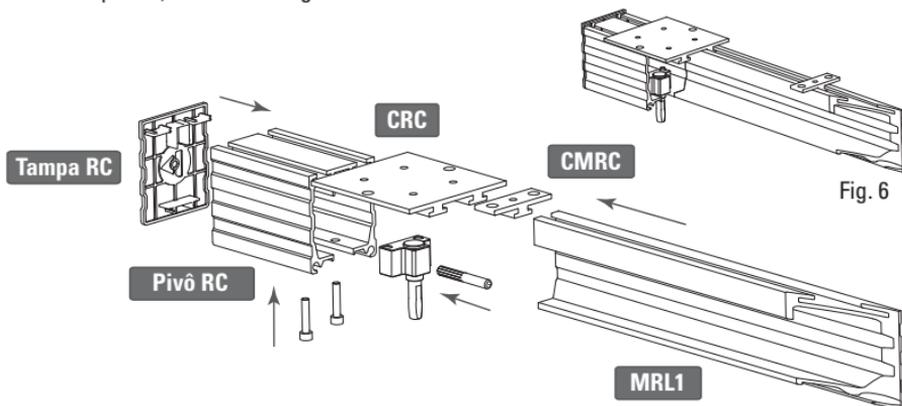
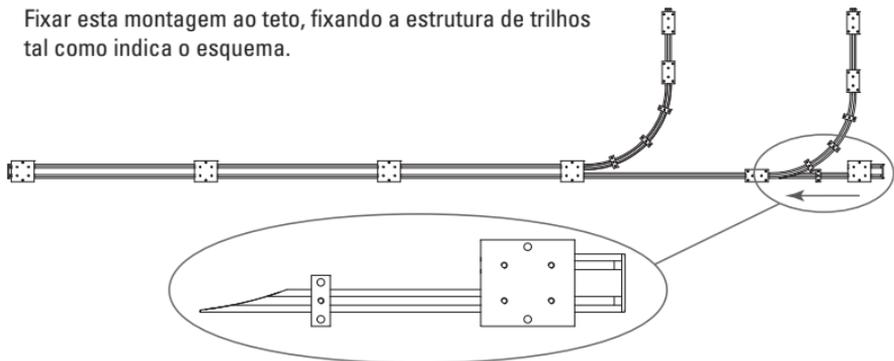
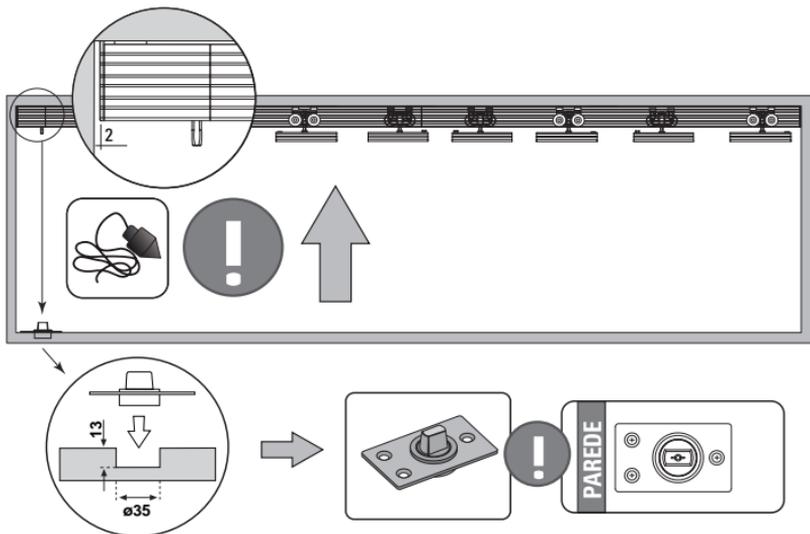


Fig. 6

Fixar esta montagem ao teto, fixando a estrutura de trilhos tal como indica o esquema.



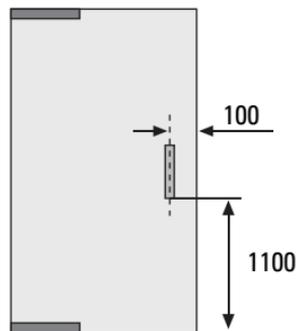
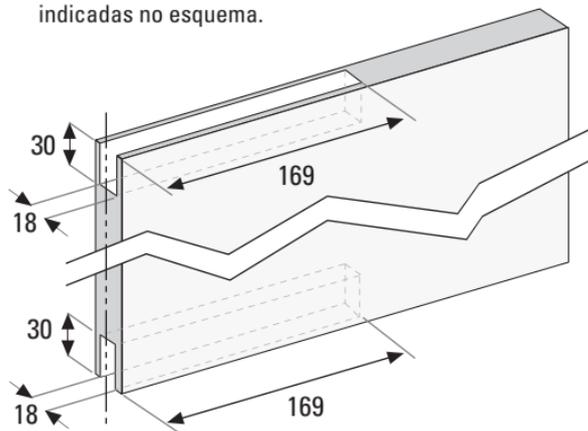
- Com a ajuda de um prumo, fixar o quício rolamento no mesmo eixo do conjunto pivô. Fazer uma perfuração de  $\varnothing 35\text{mm}$  no piso e ter atenção especial na posição que se deve aplicar o quício.



### passo 2

#### Usinagem da PORTA PIVOTANTE

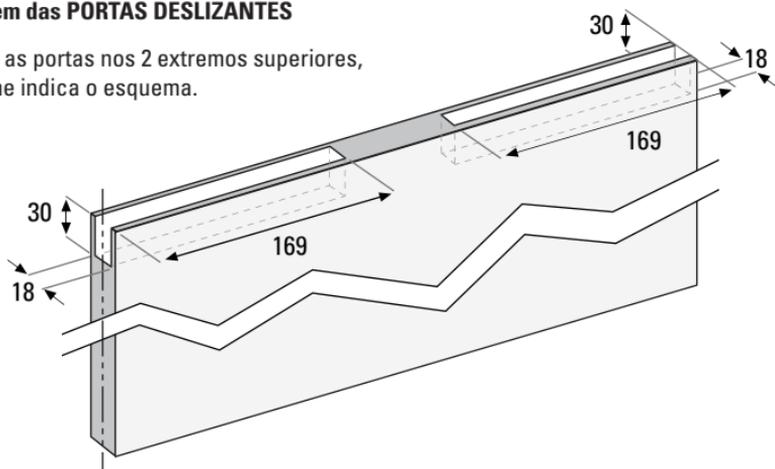
- Tanto na parte superior como na inferior da porta fazer uma usinagem conforme as medidas indicadas no esquema.



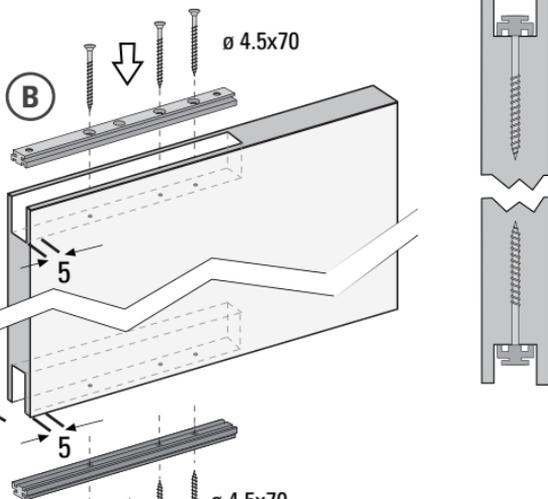
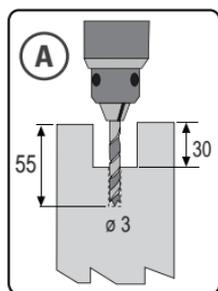
Medida de referência para instalação de puxador (não incluso no kit).

#### Usinagem das PORTAS DESLIZANTES

- Usinar as portas nos 2 extremos superiores, conforme indica o esquema.

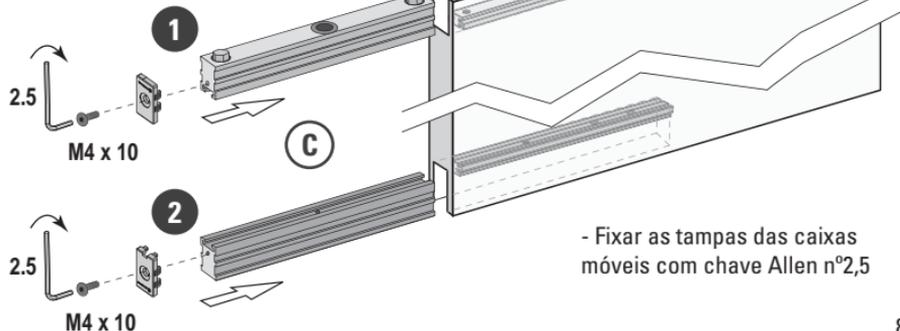


- Utilizar broca  $\varnothing 3\text{mm}$  para fazer as perfurações para instalar as bases fixas.
- Colocar as bases fixas na porta usinada, tanto em cima como em baixo e fixar com parafusos  $\varnothing 4,5 \times 70$ , tendo o cuidado de deixar 5mm de separação da borda da porta.

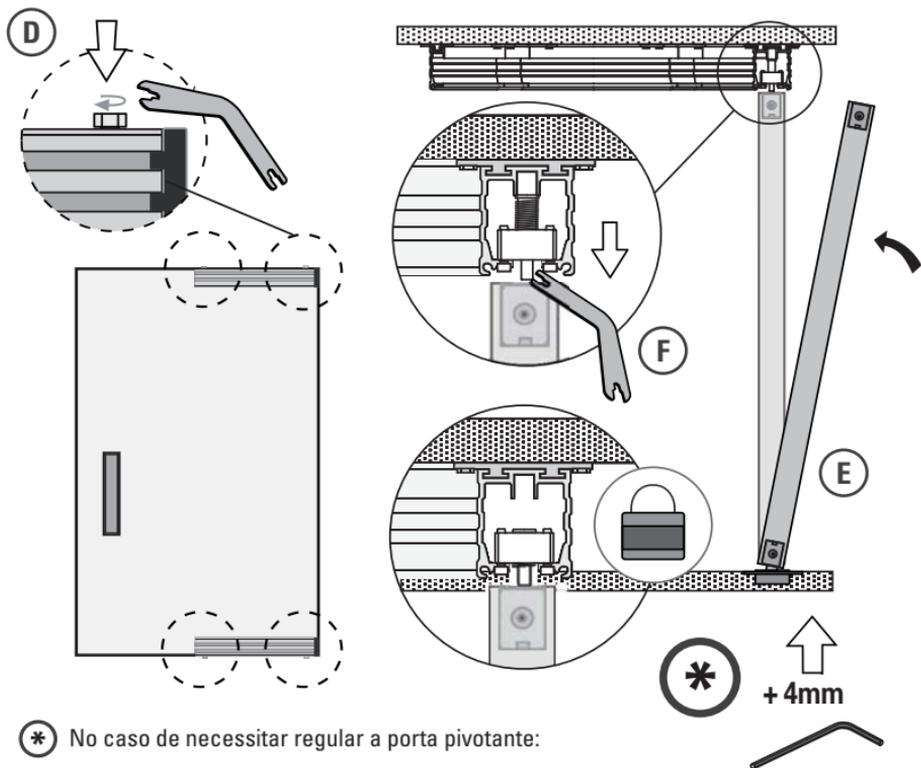


**!**  
Separação de 5mm

- Introduzir as caixas móveis do pivô (1) e móveis do quício (2), acima e abaixo respectivamente, encaixando-as nas bases fixas.



- D. Fixar as caixas móveis com chave Segmenta.
- E. Montar a porta, encaixando a caixa móvel do quício com o quício rolamento e após apurar.
- F. Introduzir o conjunto pivô dentro da caixa móvel do pivô e com a chave Segmenta fixa-lo.



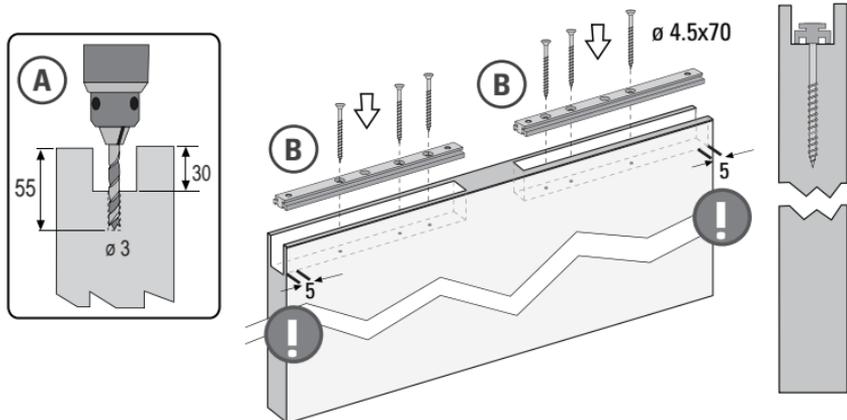
**\*** No caso de necessitar regular a porta pivotante:

1. Soltar o parafuso de fixação das caixas móveis.
2. Desmontar a porta das caixas móveis (pivô e quício).
3. Girar a porta e regular o parafuso prisioneiro da caixa móvel do quício com a chave Allen de 3mm.
4. Montar a porta com as caixas móveis e regular o parafuso de fixação.

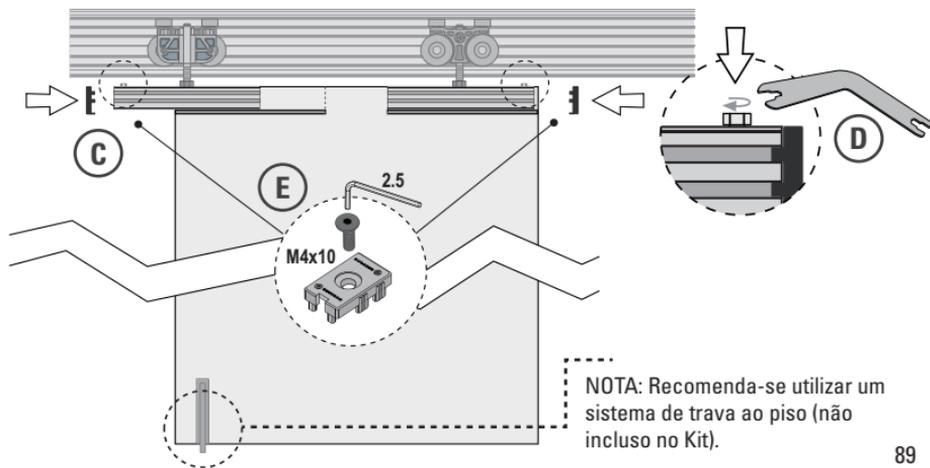
## Montagem e aplicação das portas deslizantes

### passo 4

- A. Utilizar broca  $\varnothing 3\text{mm}$  para fazer as perfurações para instalar as bases fixas.
- B. Colocar as bases fixas na porta usinada, em ambos os lados e fixar com parafusos  $\varnothing 4,5 \times 70\text{mm}$ , tendo o cuidado para deixar 5mm de separação com a borda da porta.



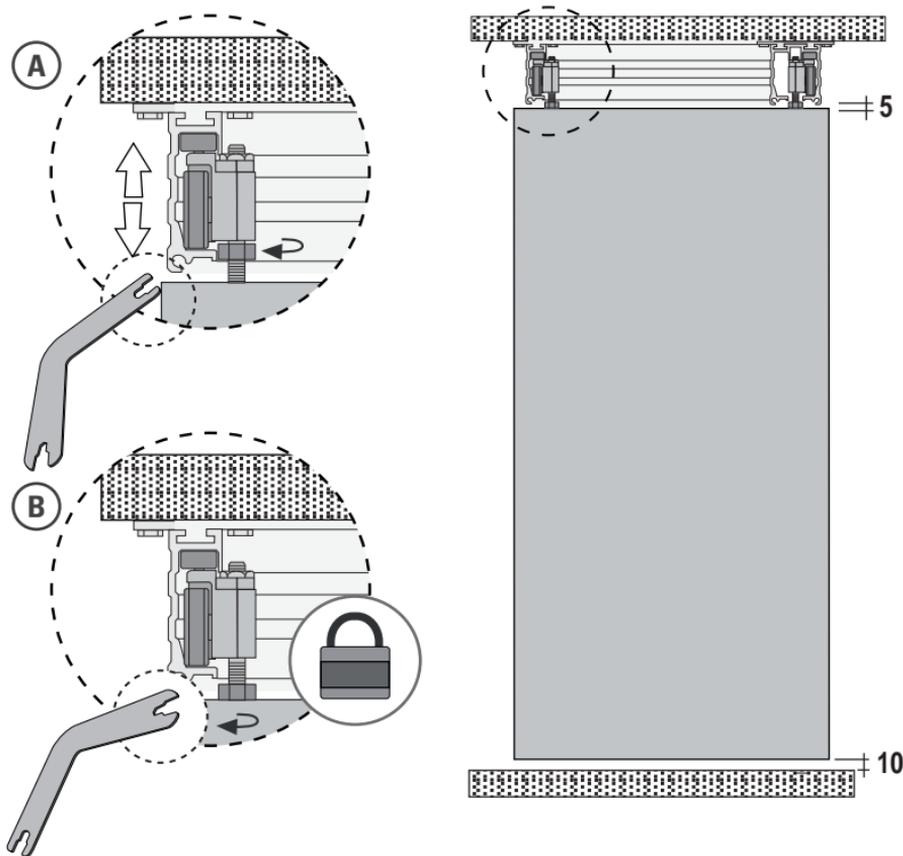
- C. Aplicar as caixas móveis dos carros nas bases fixas.
- D. Fixar as caixas móveis com a chave Segmenta.
- E. Fixar as tampas das caixas móveis com a chave Allen 2,5mm.



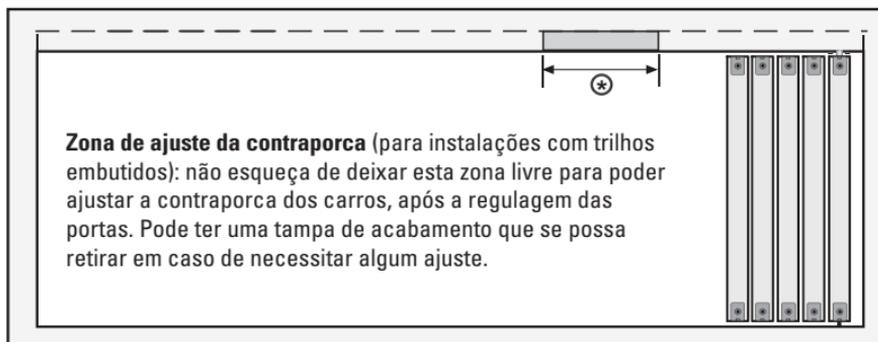
## Regulagem da altura das portas deslizantes

### passo 5

- A. Regular a altura da porta ajustando o parafuso do carro com a chave Segmenta, para deixar uma luz superior de 5mm e uma inferior de 10mm.
- B. Com o outro lado da chave Segmenta, ajustar a contraporca do carro para evitar que o mesmo desregule.

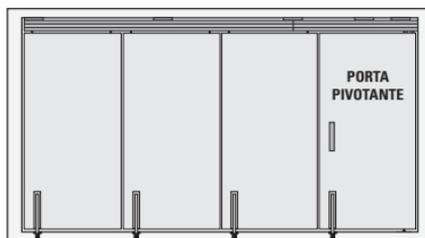


## Instalação com trilho embutido

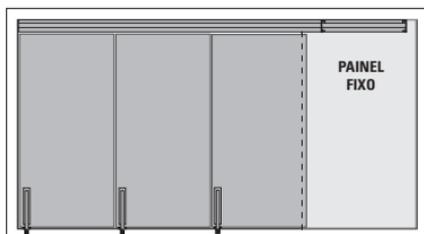


## FIXAÇÃO AO PISO

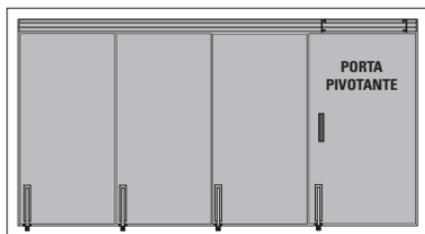
Somente após estarem todas as portas montadas, reguladas e em sua posição final, se recomenda instalar no piso as travas ou trincos embutidos para cada uma das portas.



**Sigma MD OC - Kit curvas 45°**



**Sigma MD OC - Kit curvas 90° + Painel Fixo**



**Sigma MD OC - Kit curvas 90° + Porta Pivotante**

