

Hardware to suit all folding door configurations and materials

Key Features

- Complete range of hinges, handles, rollers and more
- High-quality components
- Strong and durable
- Smooth slide and open mechanism
- Fully tested to PAS 24



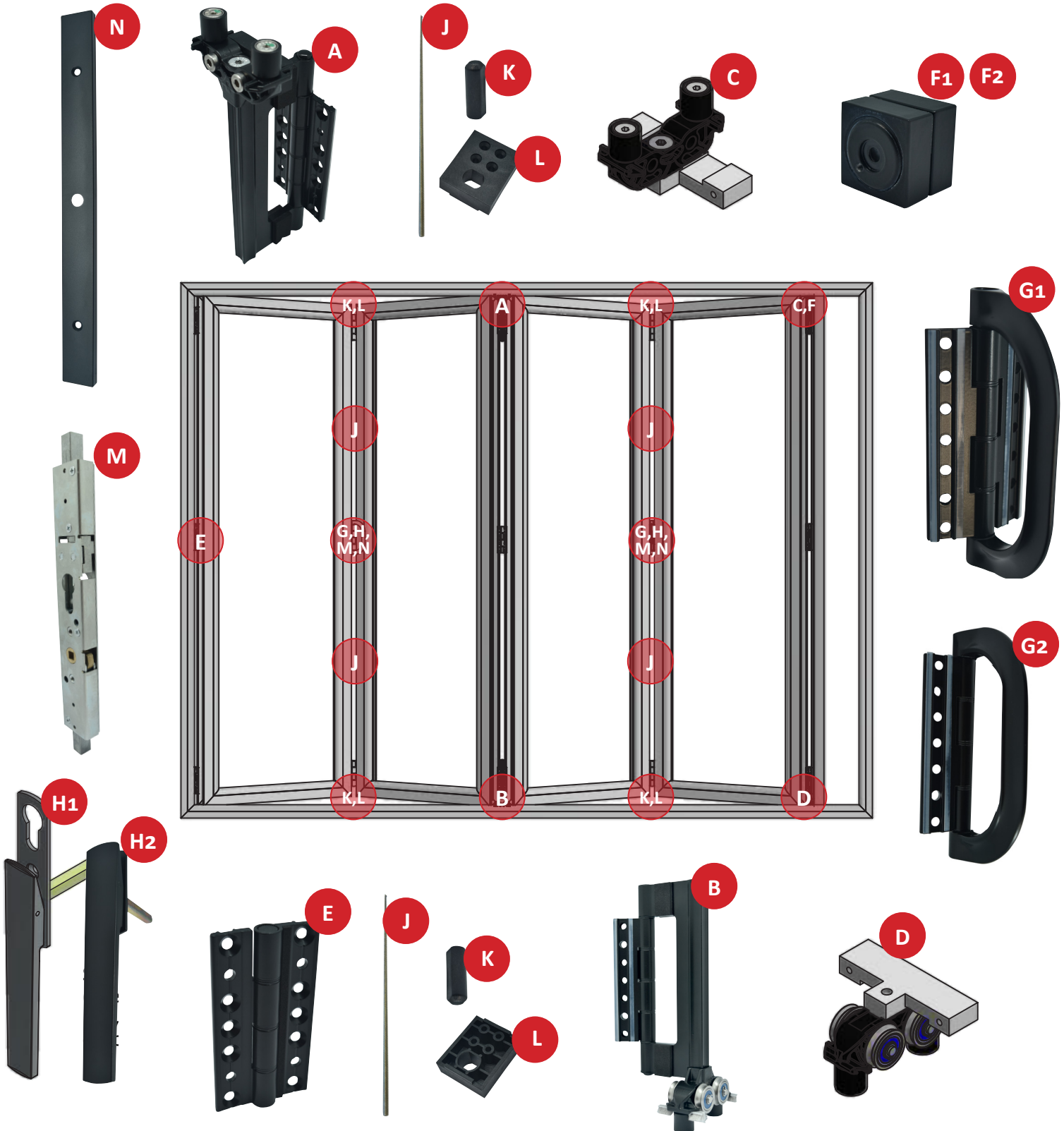
This highly-detailed 28-page document is available to download or request free of charge and contains comprehensive information designed to help fabricators with product selection, system build and correct fitting. Inside, you'll find:

- Example PAS 24 layouts
- Product dimension and technical drawings
- Step-by-step fitting instructions
- Routing details for the Caldwell bi-fold shootbolt gearbox
- Recommended install order for an example layout
- Bi-fold door toe and heel guidance
- Manufactures Warranty
- Width to height ratios to prevent overload

All of the information shown on this data sheet was taken from the Caldwell Fabricators Manual 1st Edition and correct at the time of issue. All information however is subject to change and therefore it is advisable to check with Window Ware to ensure that you have the latest issue level.

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Bi-fold Door Identification

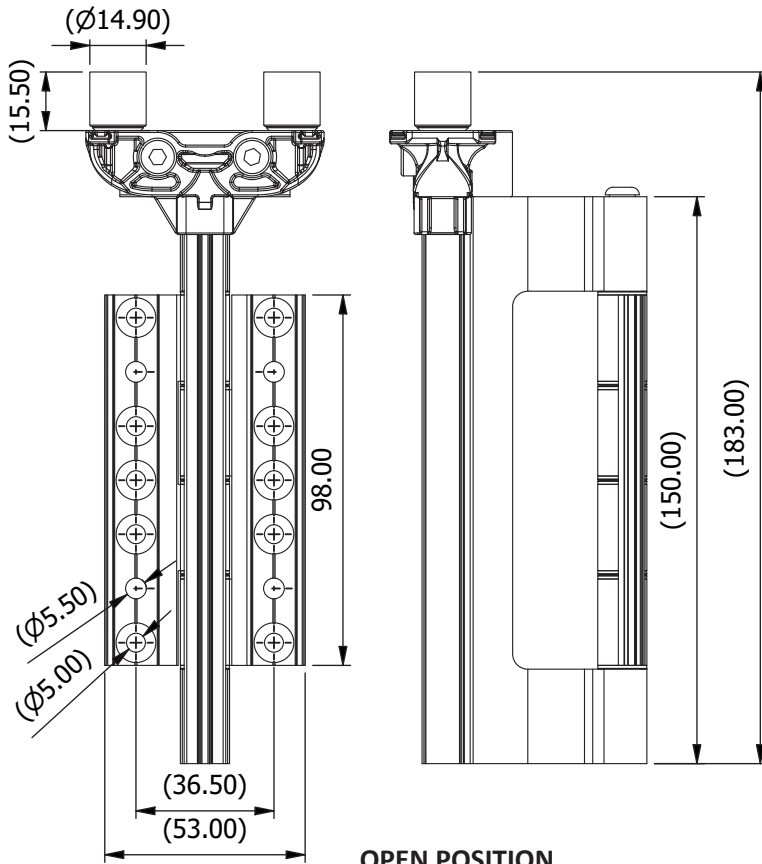
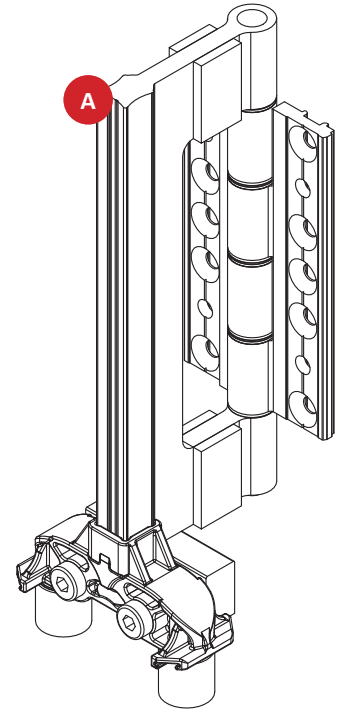
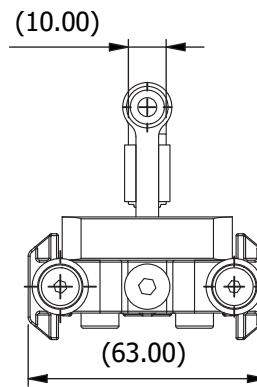
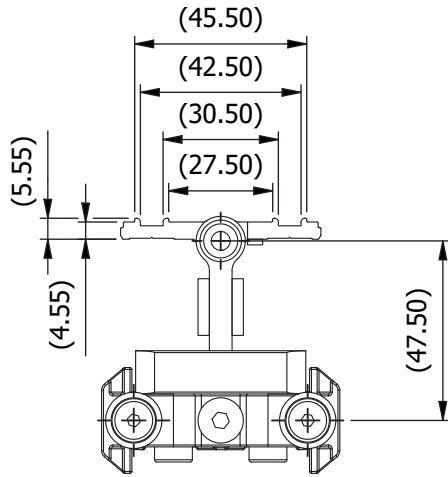




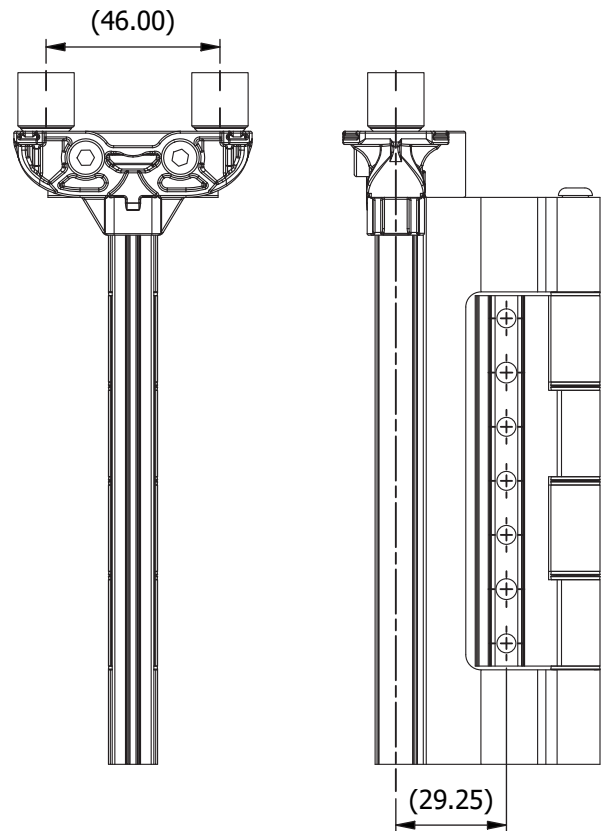
Bi-fold Door Identification Part Codes

KEY	DESCRIPTION	SIZE (mm)	FINISH	PART CODE	BOX QTY.	PAGE NO.
Rollers						
A	Top Guide Assembly	53 x 183	HIPCA White	CBF21000	10	4-5
		53 x 183	Polished Chrome	CBF21002	10	4-5
		53 x 183	Brushed Steel	CBF21003	10	4-5
		53 x 183	Black RAL9005	CBF21005	10	4-5
B	Roller Assembly	53 x 183	HIPCA White	CBF20000	10	6-7
		53 x 183	Polished Chrome	CBF20002	10	6-7
		53 x 183	Brushed Steel	CBF20003	10	6-7
		53 x 183	Black RAL9005	CBF20005	10	6-7
		Width x Length x Height				
C	Mullion Top Guide for Slave Door	63 x 70.5 x 41.5	HIPCA White	CBF31000	10	8-9
		63 x 70.5 x 41.5	Black RAL9005	CBF31005	10	8-9
D	Mullion Roller for Slave Door	63 x 70.5 x 41.5	HIPCA White	CBF30000	10	10-11
		63 x 70.5 x 41.5	Black RAL9005	CBF30005	10	10-11
		Width x Length				
Hinges						
E	Door Hinge	53 x 98	HIPCA White	CBF40000	10	12-13
		53 x 98	Polished Chrome	CBF40002	10	12-13
		53 x 98	Brushed Steel	CBF40003	10	12-13
		53 x 98	Black RAL9005	CBF40005	10	12-13
		Width x Length x Height				
Magnets						
F1	Door Magnets - 26mm	2 x (30 x 30 x 12.8)	HIPCA White	CBF72600	10	24
		2 x (30 x 30 x 12.8)	Polished Chrome	CBF72602	10	24
		2 x (30 x 30 x 12.8)	Brushed Steel	CBF72603	10	24
		2 x (30 x 30 x 12.8)	Black RAL9005	CBF72605	10	24
F2	Door Magnets - 60mm	2 x (30 x 30 x 30.6)	HIPCA White	CBF76000	10	24
		2 x (30 x 30 x 30.6)	Polished Chrome	CBF76002	10	24
		2 x (30 x 30 x 30.6)	Brushed Steel	CBF76003	10	24
		2 x (30 x 30 x 30.6)	Black RAL9005	CBF76005	10	24
		Width x Length x Depth				
Handles						
G1	D-Handle with Hinge	53 x 98 x 59.5	HIPCA White	CBF50000	10	14-15
		53 x 98 x 59.5	Polished Chrome	CBF50002	10	14-15
		53 x 98 x 59.5	Brushed Steel	CBF50003	10	14-15
		53 x 98 x 59.5	Black RAL9005	CBF50005	10	14-15
G2	Stack-in D-Handle	26.5 x 130 x 59.5	HIPCA White	CBF51000	10	16
		26.5 x 130 x 59.5	Polished Chrome	CBF51002	10	16
		26.5 x 130 x 59.5	Brushed Steel	CBF51003	10	16
		26.5 x 130 x 59.5	Black RAL9005	CBF51005	10	16
		Length x Spindle				
H1	Flat Door Handle with escutcheon	200 x 76	HIPCA White	CBF10000	10	20-21
		200 x 76	Polished Chrome	CBF10002	10	20-21
		200 x 76	Brushed Steel	CBF10003	10	20-21
		200 x 76	Gold	CBF10009	10	20-21
		200 x 76	Black RAL9005	CBF10005	10	20-21
H2	Flat Door Handle without Escutcheon	155 x 76	HIPCA White	CBF11000	10	20-21
		155 x 76	Polished Chrome	CBF11002	10	20-21
		155 x 76	Brushed Steel	CBF11003	10	20-21
		155 x 76	Gold	CBF11009	10	20-21
		155 x 76	Black RAL9005	CBF11005	10	20-21
		Thread x Length				
Shootbolt Parts						
J	Shootbolt Rods	M10 x 1500	-	CBF61500	10	2
K	Shootbolt Rod Cone	-	Black RAL9005	CBF62100	50	22-23
L	Shootbolt Rod Guide	-	Black RAL9005	CBF62000	50	22-23
		Width x Length x Height				
M	Shootbolt Gearbox	35 x 231 x 15.7	Silver	CBF60000	10	18, 21
N	Shootbolt Gearbox Cover	28 x 310 x 9.25	Black RAL9005	CBF61000	10	19, 21

Bi-fold Door Top Guide Assembly



OPEN POSITION

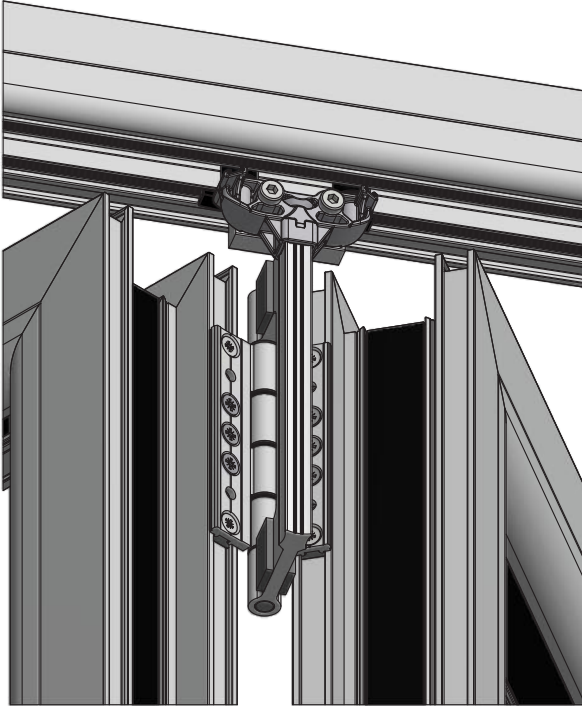


CLOSED POSITION

HIPCA WHITE	CHROME	BRUSHED STEEL	BLACK RAL9005	BOX QTY.
CBF21000	CBF21002	CBF21003	CBF21005	10

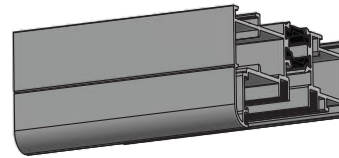
A

Bi-fold Door Top Guide Assembly Fitting Instructions



Used where two hinged panels sit onto the track

All top guides, clamp plates and fitting are supplied in kits.



STEP 4 - Fit insert into head profile.
Insert needs to be fitted to guarantee security

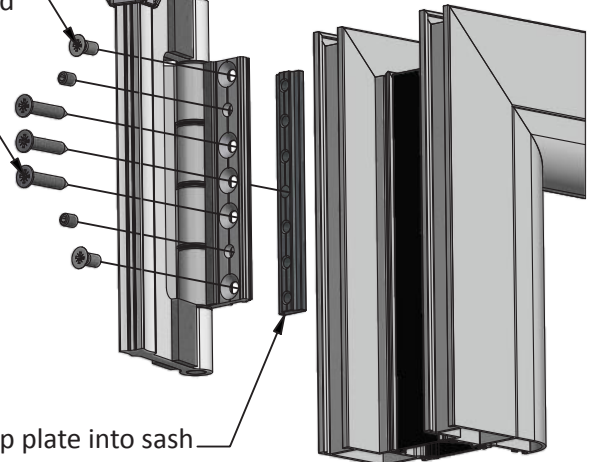
STEP 2 - Fit Clamp plate screws
This will allow for adjustment if required

WARNING: Ensure guide bushes are sufficiently engaged in frame profile

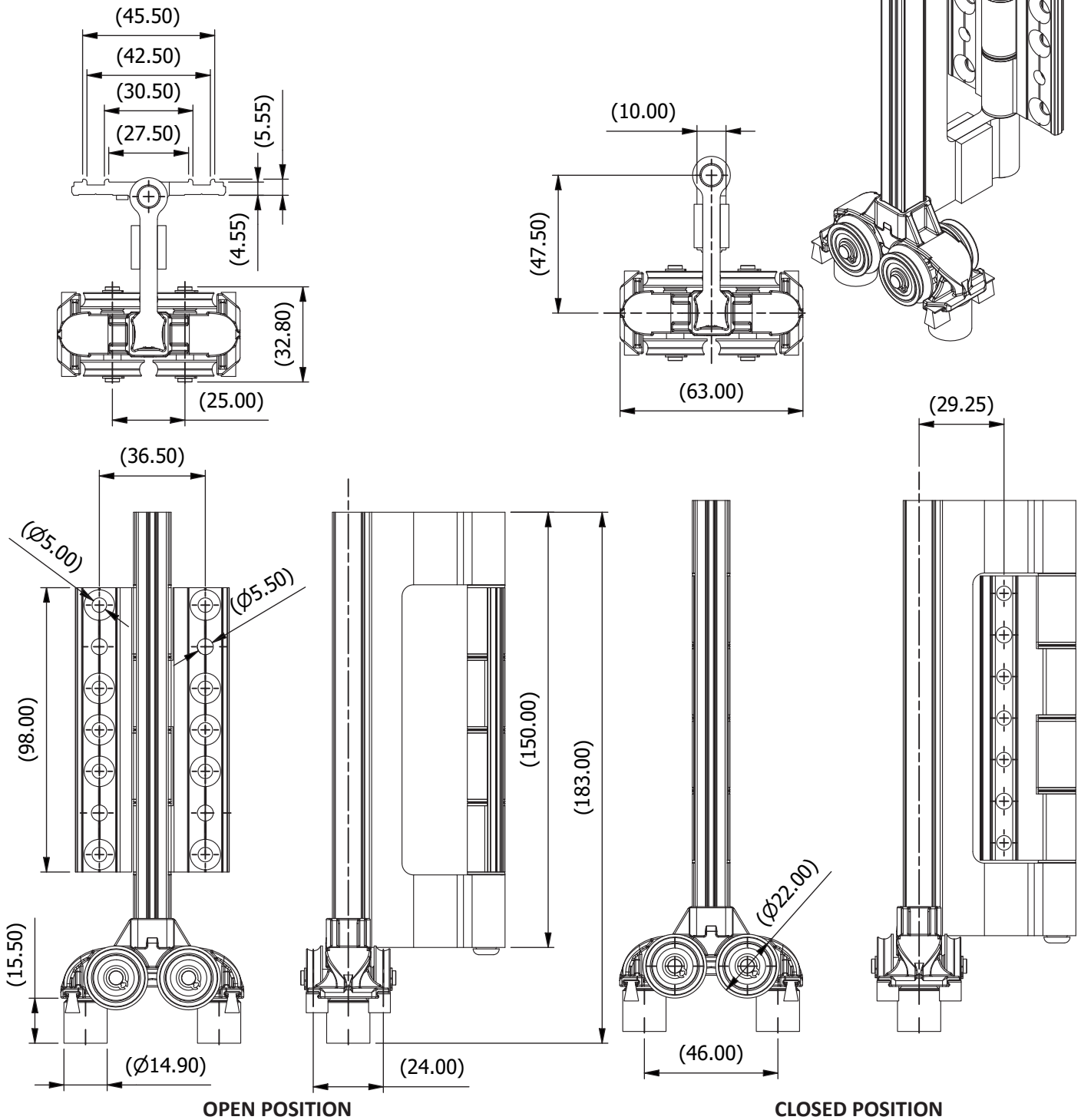
4.5Nm
Torque
on all fixings

STEP 3 - WARNING:
Only fit self drill screw once hinge position is finalised

STEP 1 - Fit clamp plate into sash (or frame) channel



Bi-fold Door Roller Assembly



OPEN POSITION

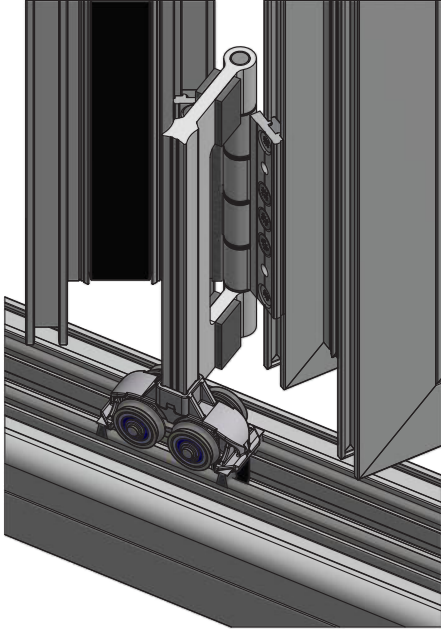
CLOSED POSITION

HIPCA WHITE	CHROME	BRUSHED STEEL	BLACK RAL9005	BOX QTY.
CBF20000	CBF20002	CBF20003	CBF20005	10

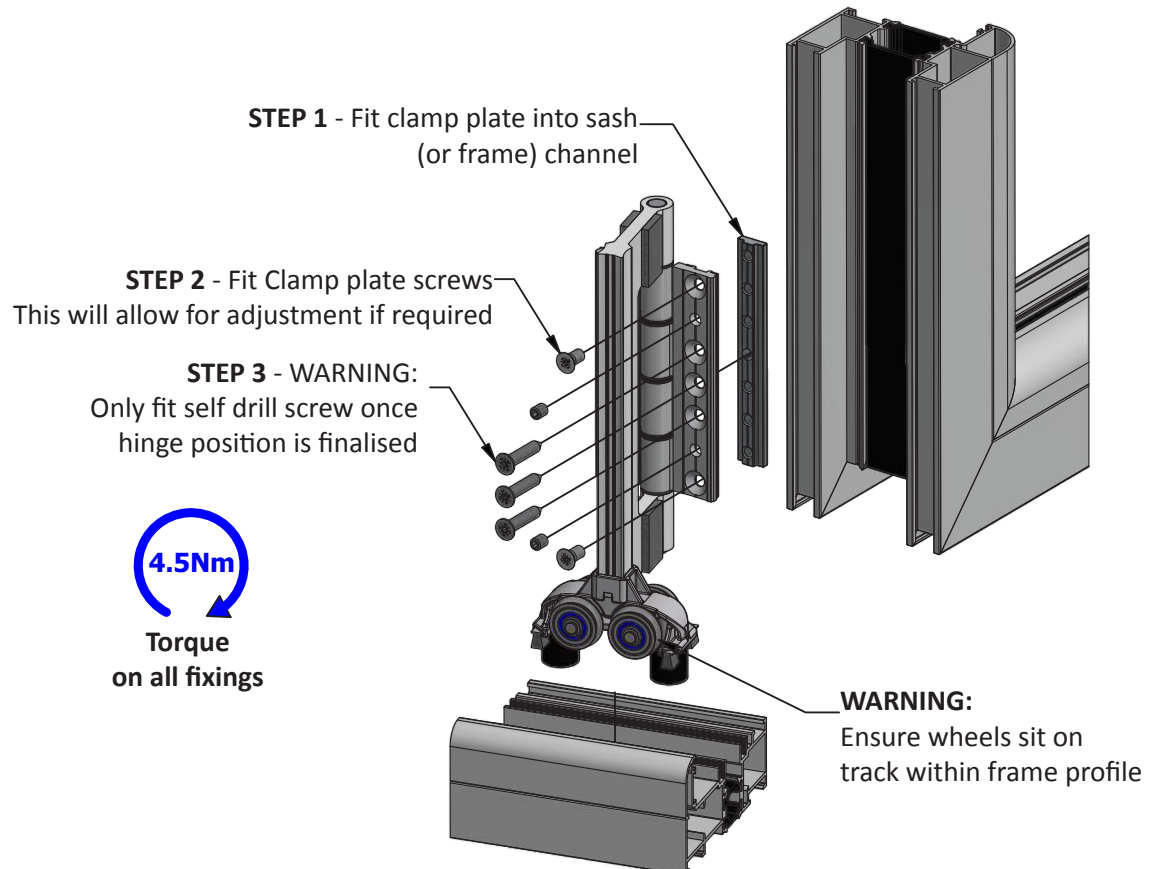
Bi-fold Door Roller Assembly Fitting Instructions



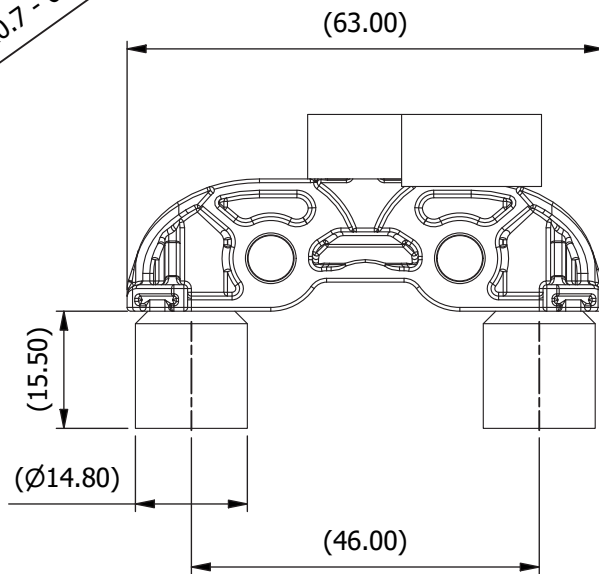
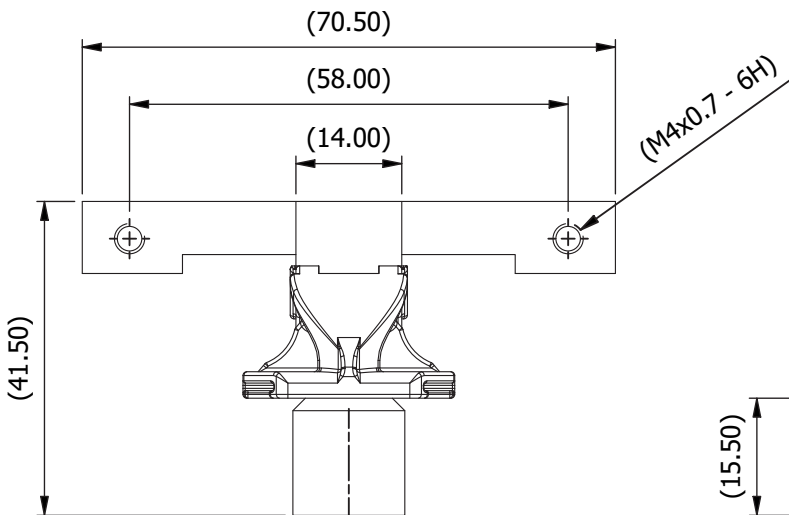
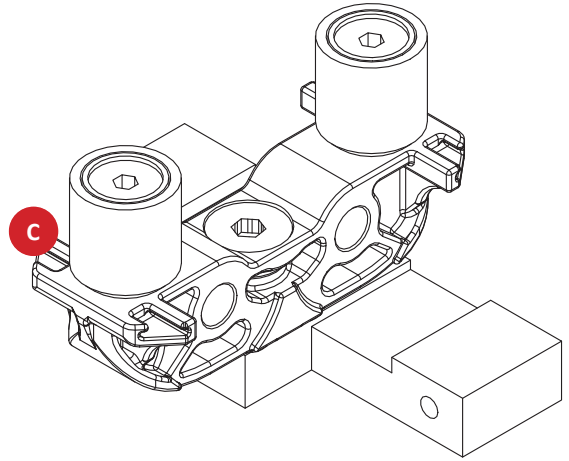
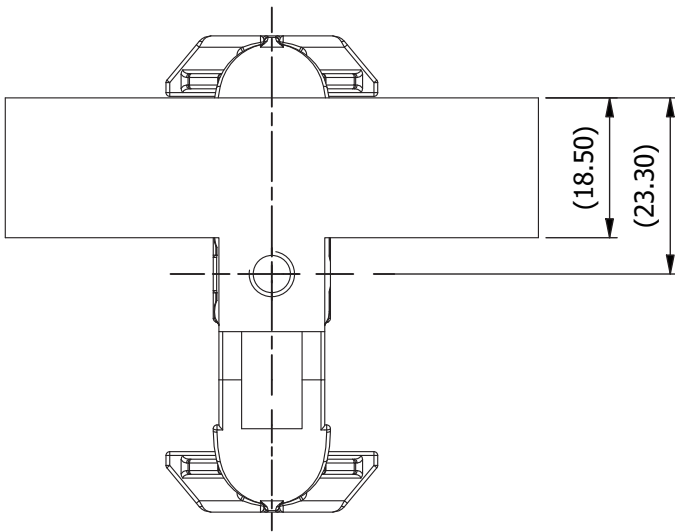
All rollers, clamp plates and fitting are supplied in kits.



Used where two hinged panels sit onto the track



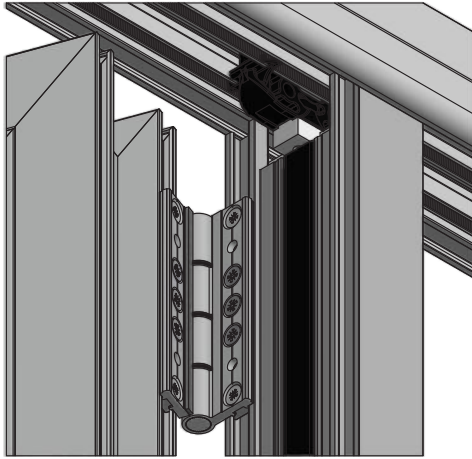
Mullion Top Guide for Slave Bi-fold Door



C

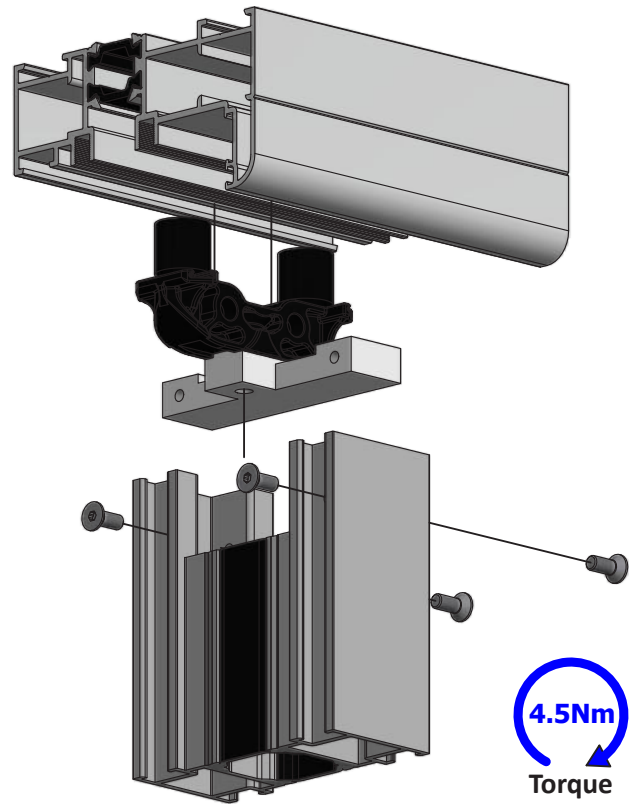
HIPCA WHITE	BLACK RAL9005	BOX QTY.
CBF31000	CBF31005	10

Mullion Top Guide for Slave Bi-fold Door Fitting Instructions



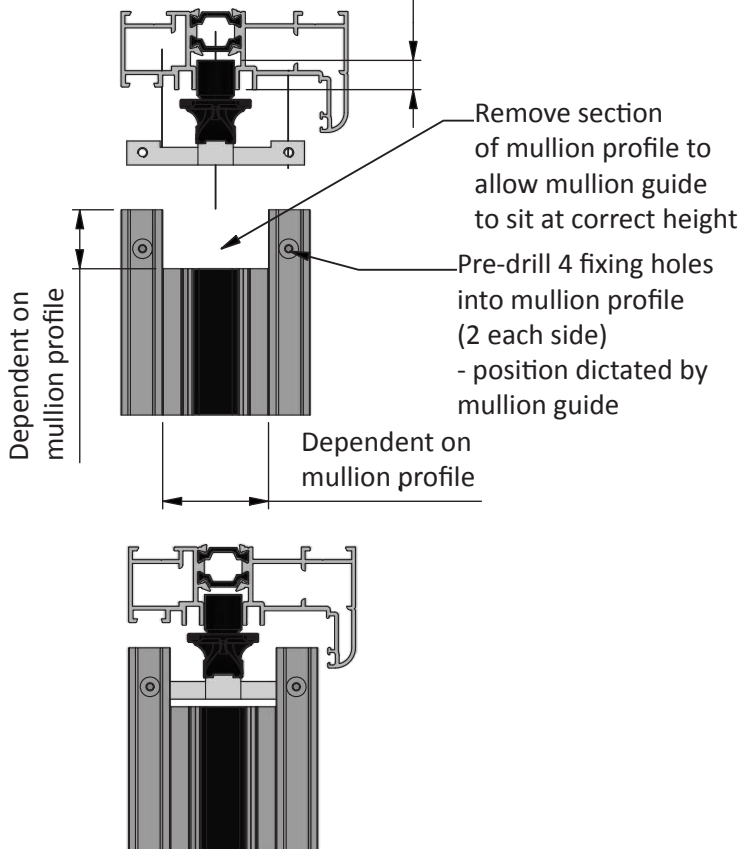
Used where two hinged panels sit onto the track

All mullion guides are supplied in kits.

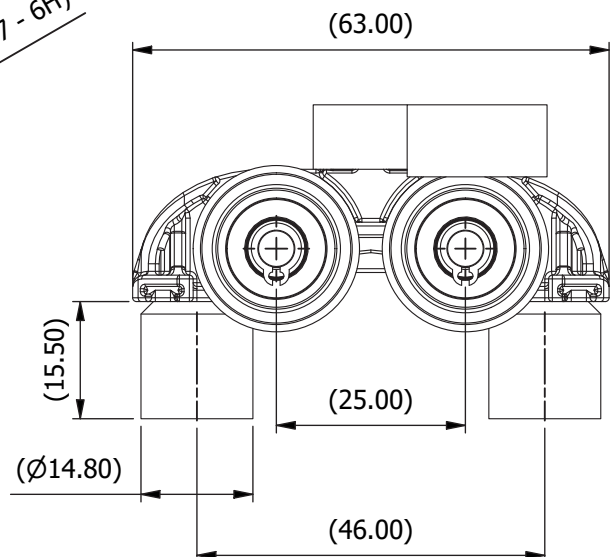
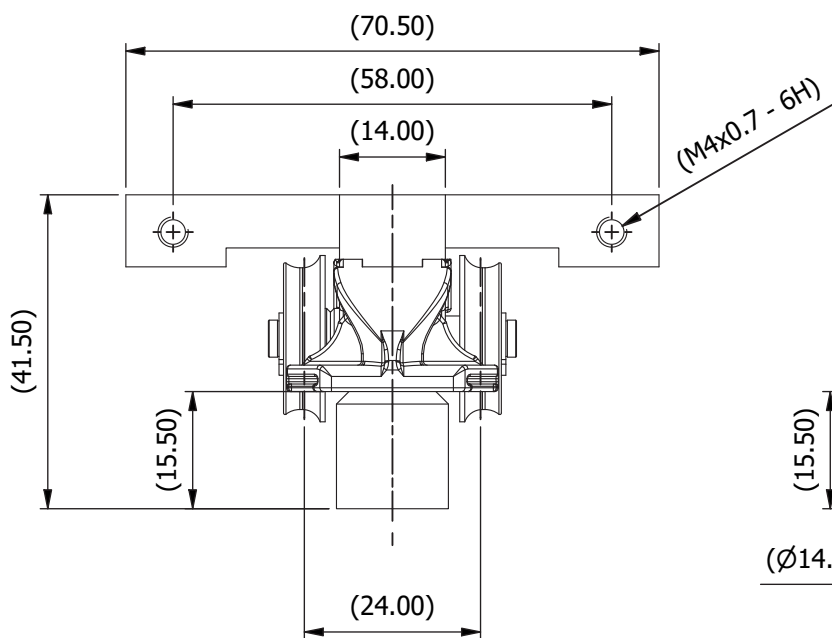
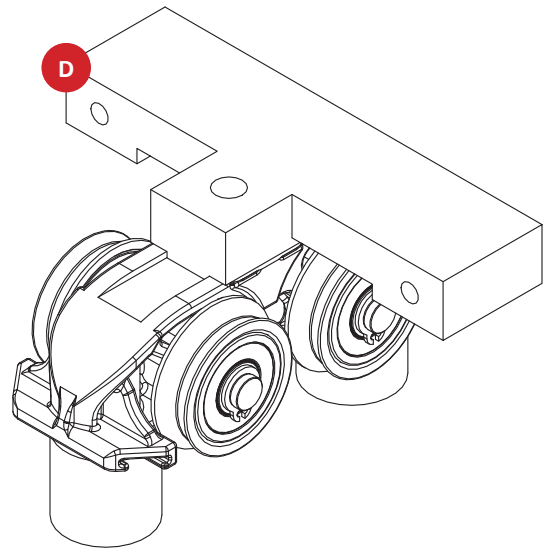
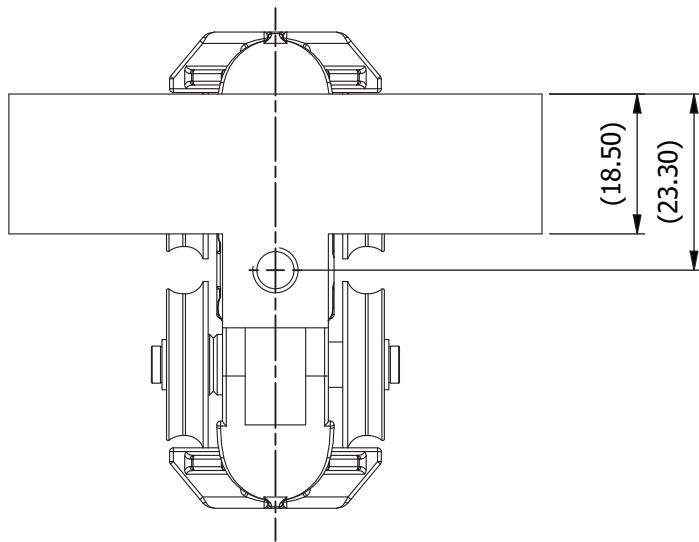


4.5Nm
Torque
on all fixings

WARNING:
Ensure wheels sit on track within frame profile



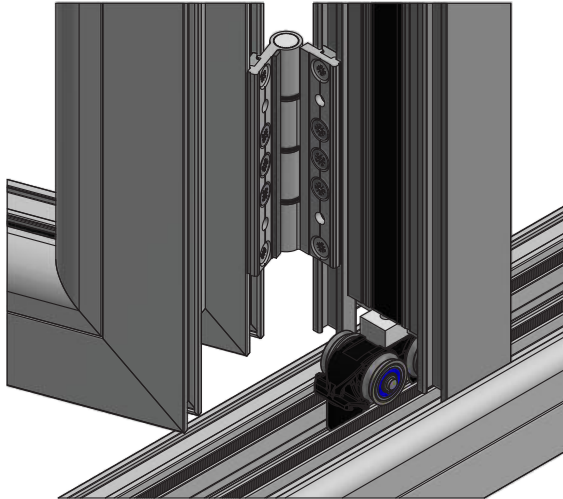
Mullion Roller for Slave Bi-fold Door



D

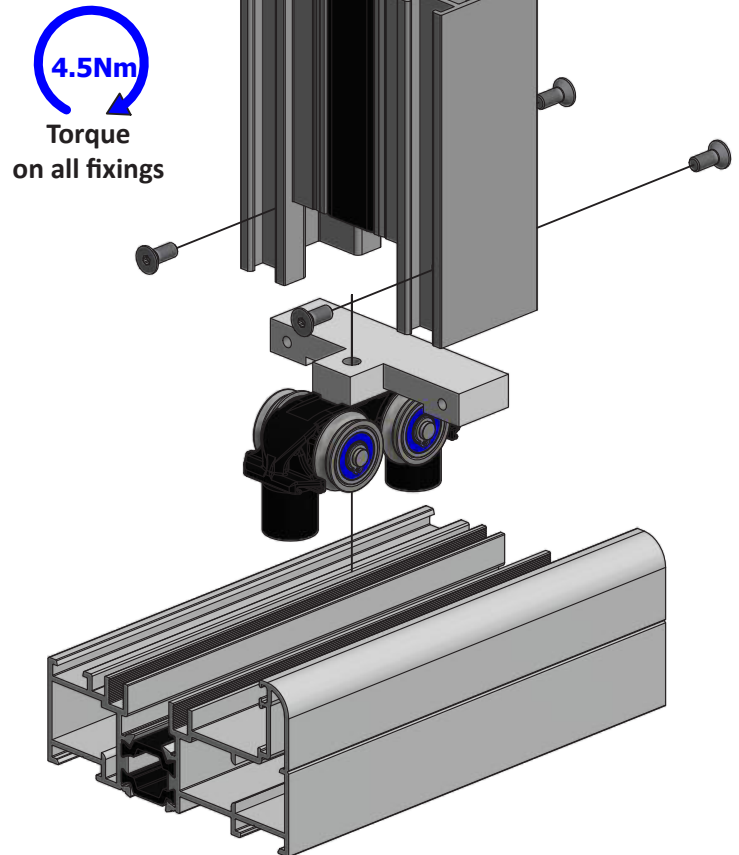
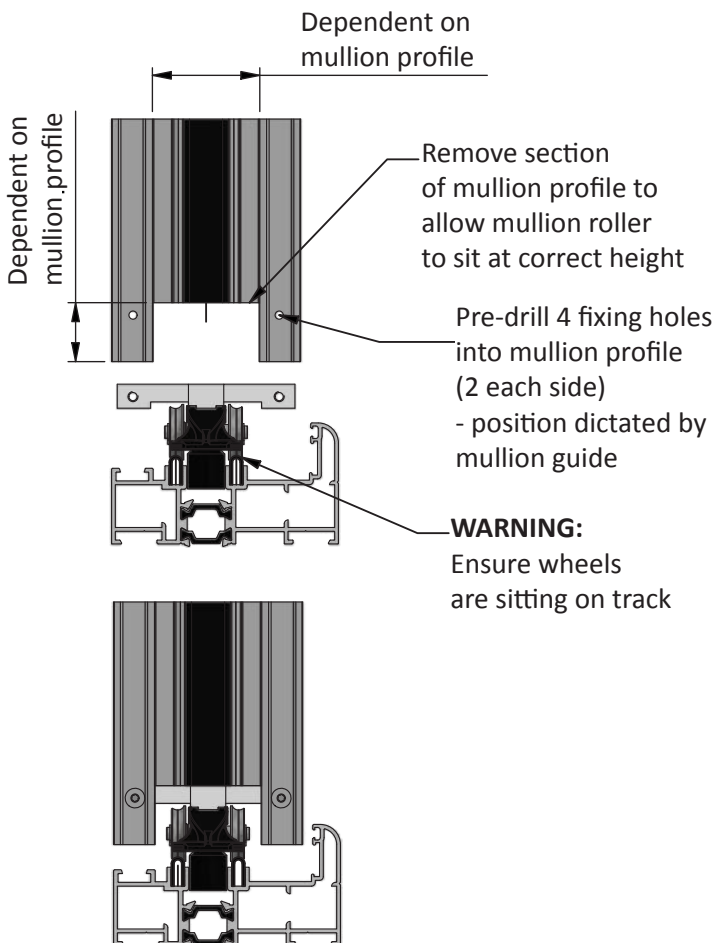
HIPCA WHITE	BLACK RAL9005	BOX QTY.
CBF30000	CBF30005	10

Mullion Roller for Slave Bi-fold Door Fitting Instructions

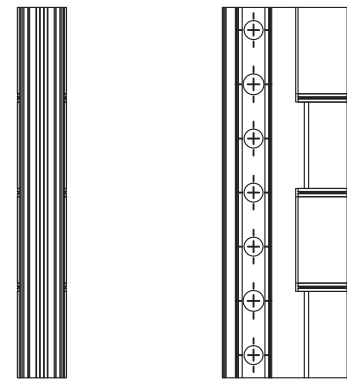
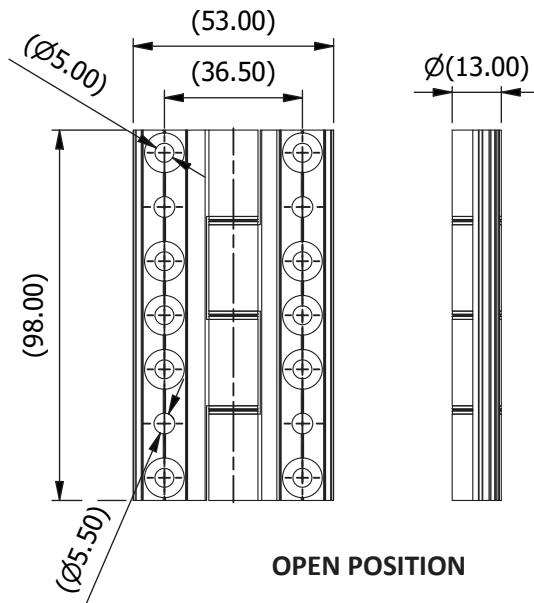
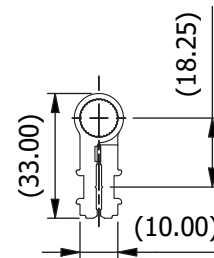
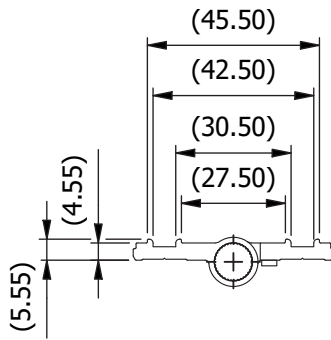
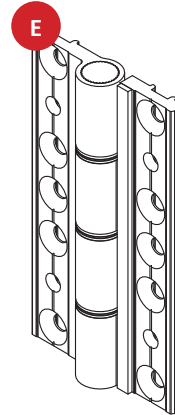


Used where two hinged panels sit onto the track

Mullion rollers are supplied in kits.



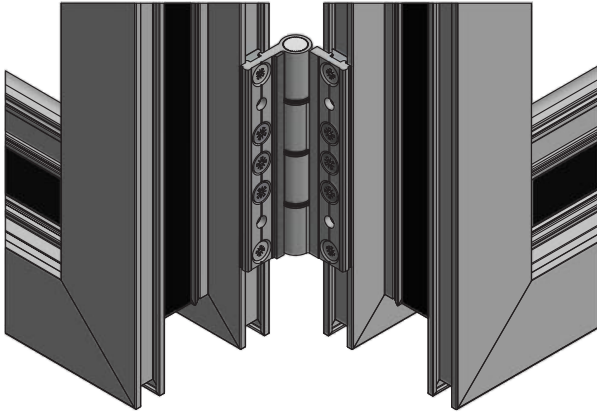
Bi-fold Door Hinge



E

HIPCA WHITE	CHROME	BRUSHED STEEL	BLACK RAL9005	BOX QTY.
CBF40000	CBF40002	CBF40003	CBF40005	10

Bi-fold Door Hinge Fitting Instructions



Used between two hinged door panels or between hinged door & frame

All hinges, clamp plates and fitting are supplied in kits.

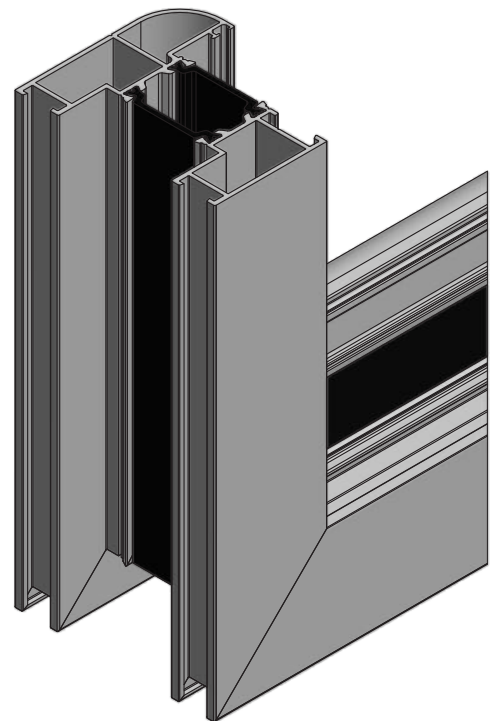
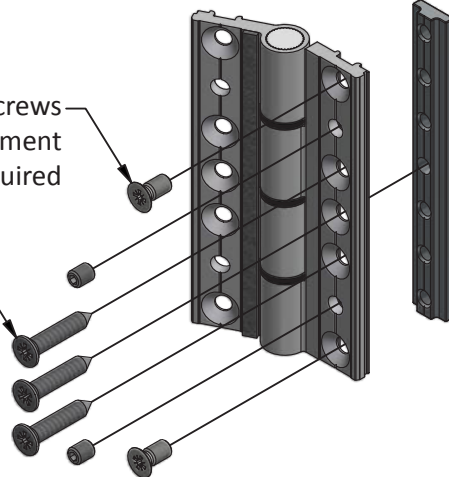


Torque on all fixings

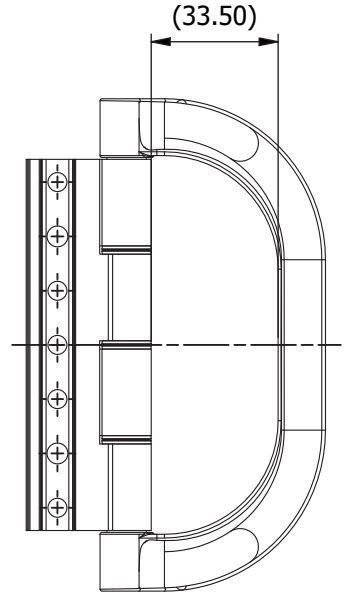
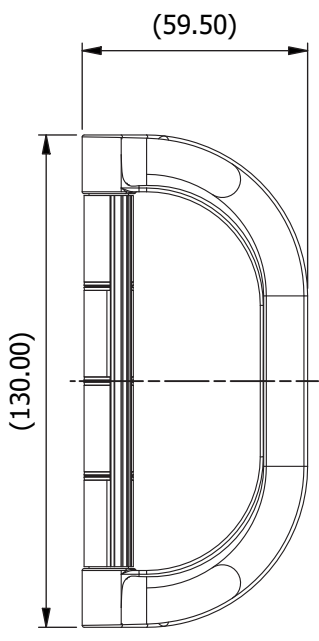
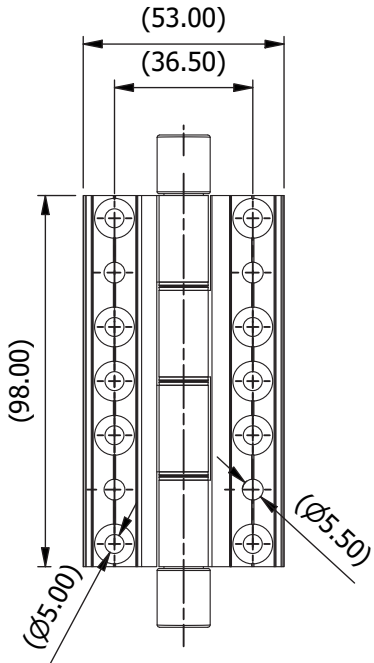
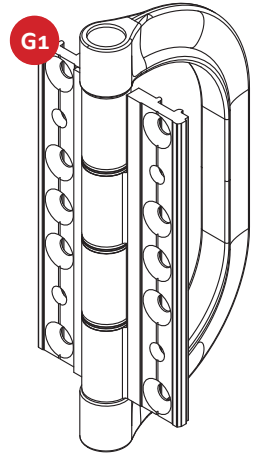
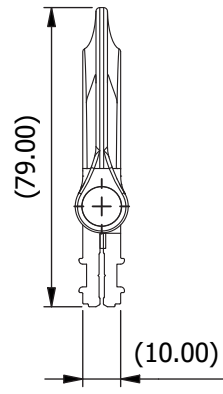
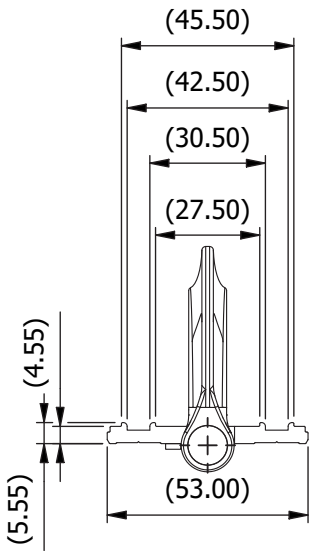
STEP 2 - Fit Clamp plate screws
This will allow for adjustment if required

Step 3 - WARNING:
Only fit self drill screw once hinge position is finalised

STEP 1 - Fit clamp plate into sash (or frame) channel



Bi-fold Door D-handle with Hinge



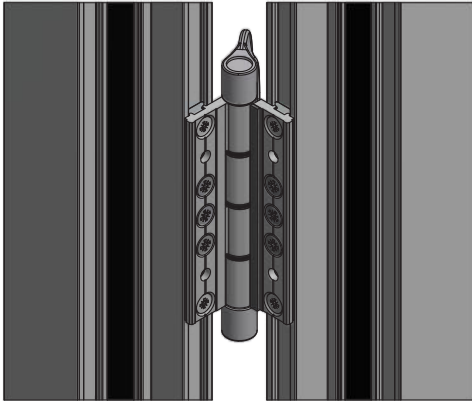
OPEN POSITION

CLOSED POSITION

G1

HIPCA WHITE	CHROME	BRUSHED STEEL	BLACK RAL9005	BOX QTY.
CBF50000	CBF50002	CBF50003	CBF50005	10

Bi-fold Door D-handle with Hinge Fitting Instructions



All D-handles, clamp plates and fitting are supplied in kits.

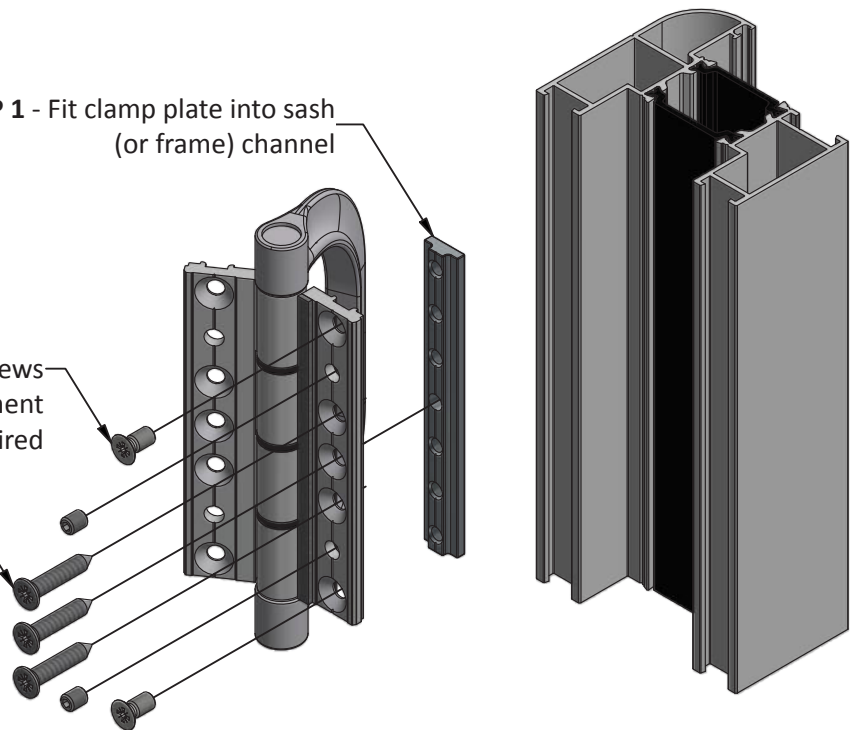
Used instead of the centre hinge where two hinged panels **do not** sit on the track, on stack out door configurations



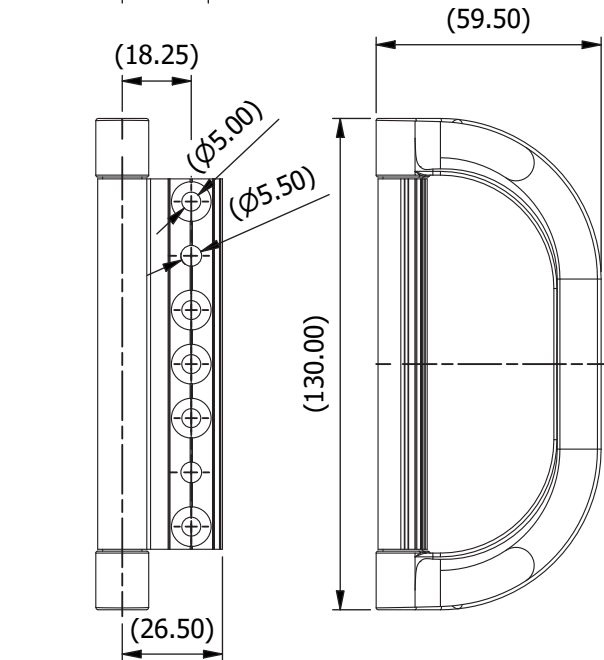
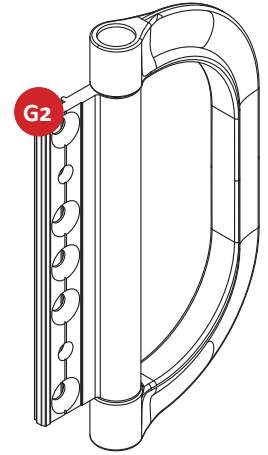
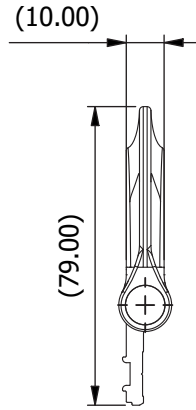
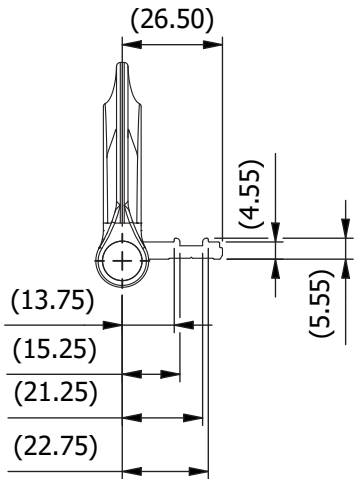
STEP 1 - Fit clamp plate into sash (or frame) channel

STEP 2 - Fit Clamp plate screws
This will allow for adjustment if required

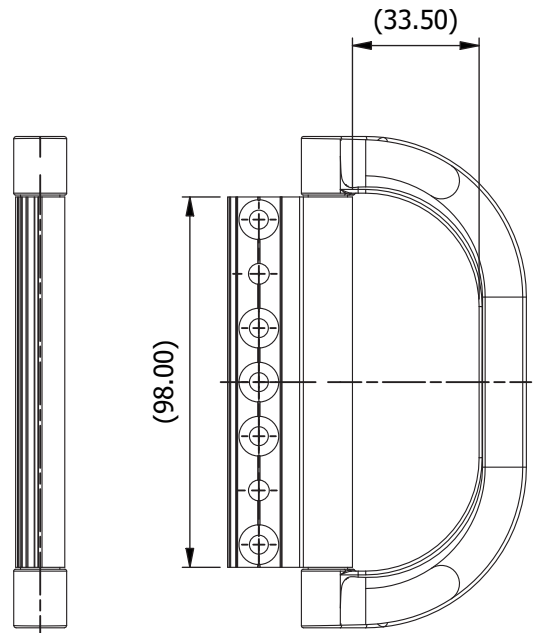
Step 3 - **WARNING:**
Only fit self drill screw once hinge position is finalised



Bi-fold Door Stack-in D-handle



OPEN POSITION

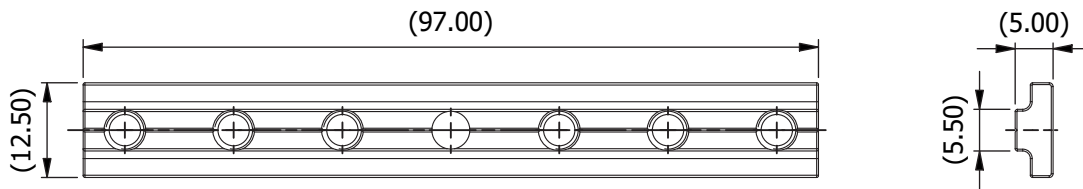


CLOSED POSITION

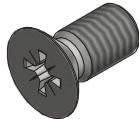
G2

HIPCA WHITE	CHROME	BRUSHED STEEL	BLACK RAL9005	BOX QTY.
CBF51000	CBF51002	CBF51003	CBF51005	10

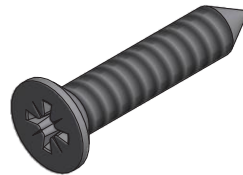
Bi-fold Door Clamp Plate and fastener



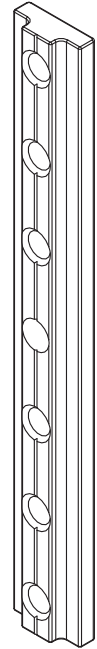
M5 X 10 Csk Socket Screw S/S



4.8 X 25 Csk Self Drill Screw S/S



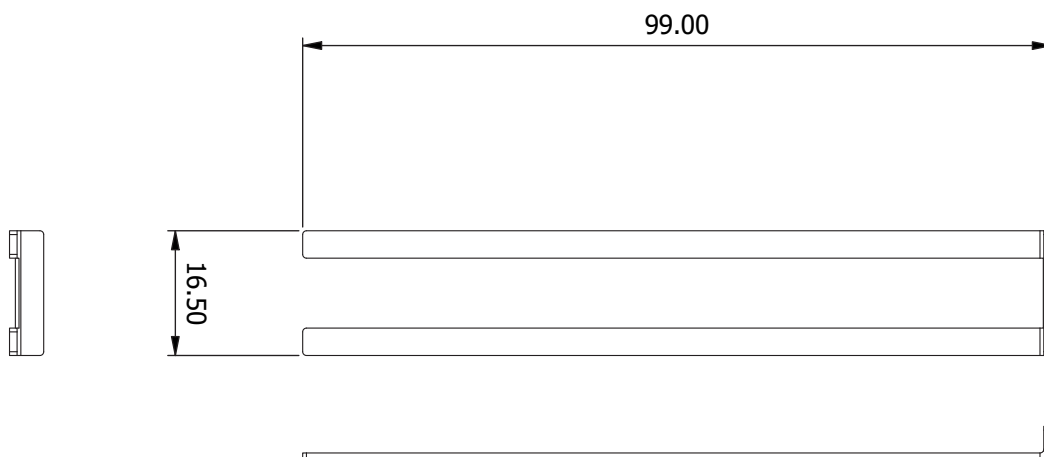
M5x6 Grubscrew Flat Point Skt Set A2 S/St



PLEASE NOTE:

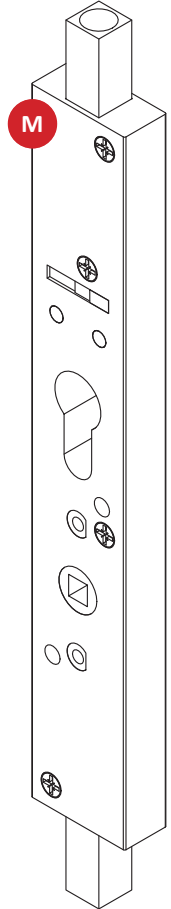
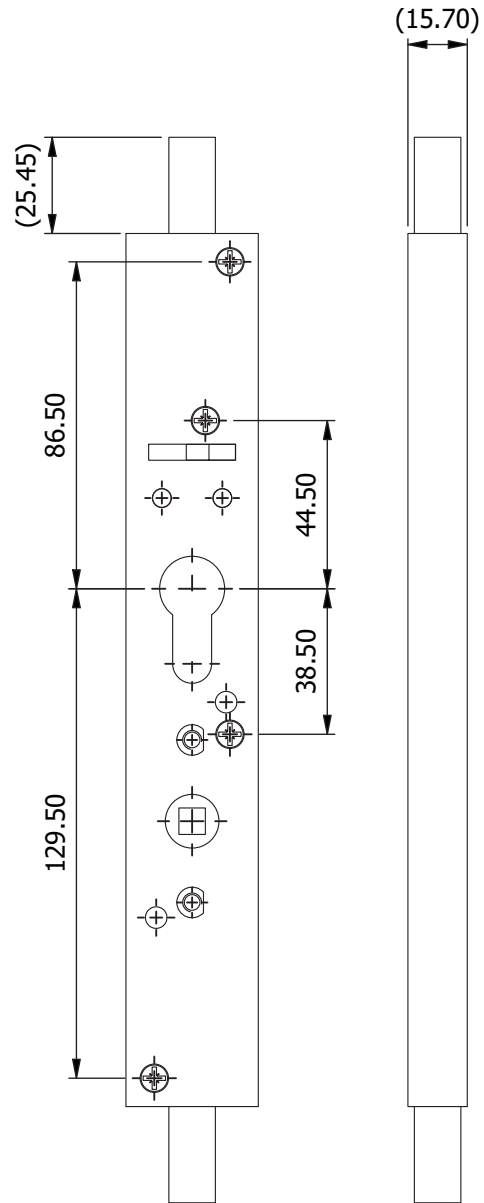
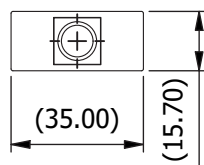
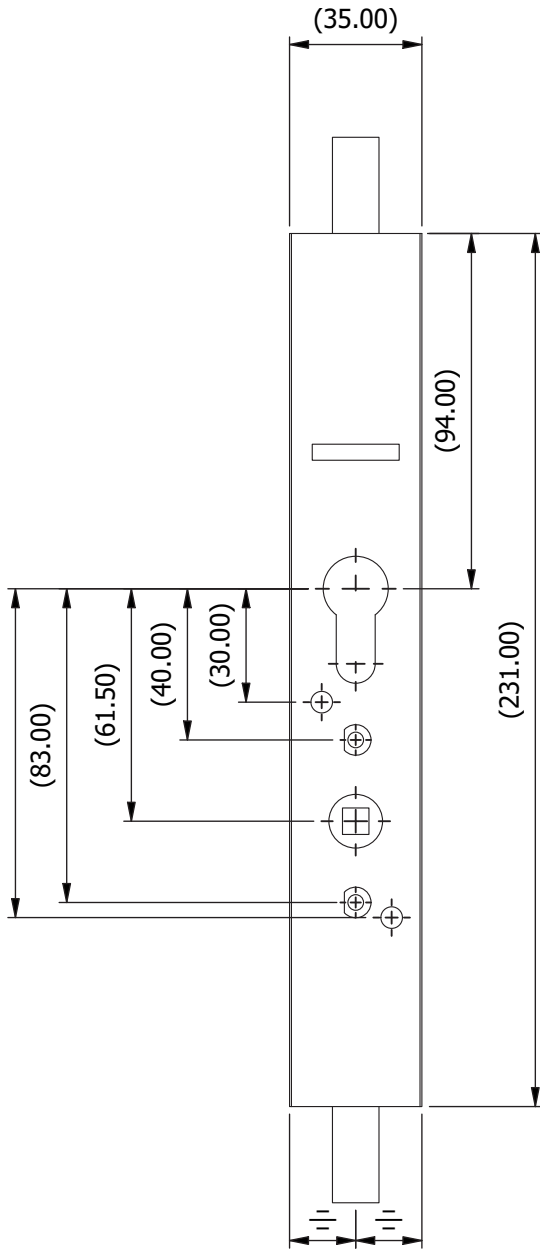
- THESE ITEMS ARE NOT FOR INDIVIDUAL SALE
- CLAMP PLATE AND FASTENERS ARE SUPPLIED ALONG WITH HARDWARE ASSEMBLY
- ITEMS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY

Bi-fold Door Shim Kit



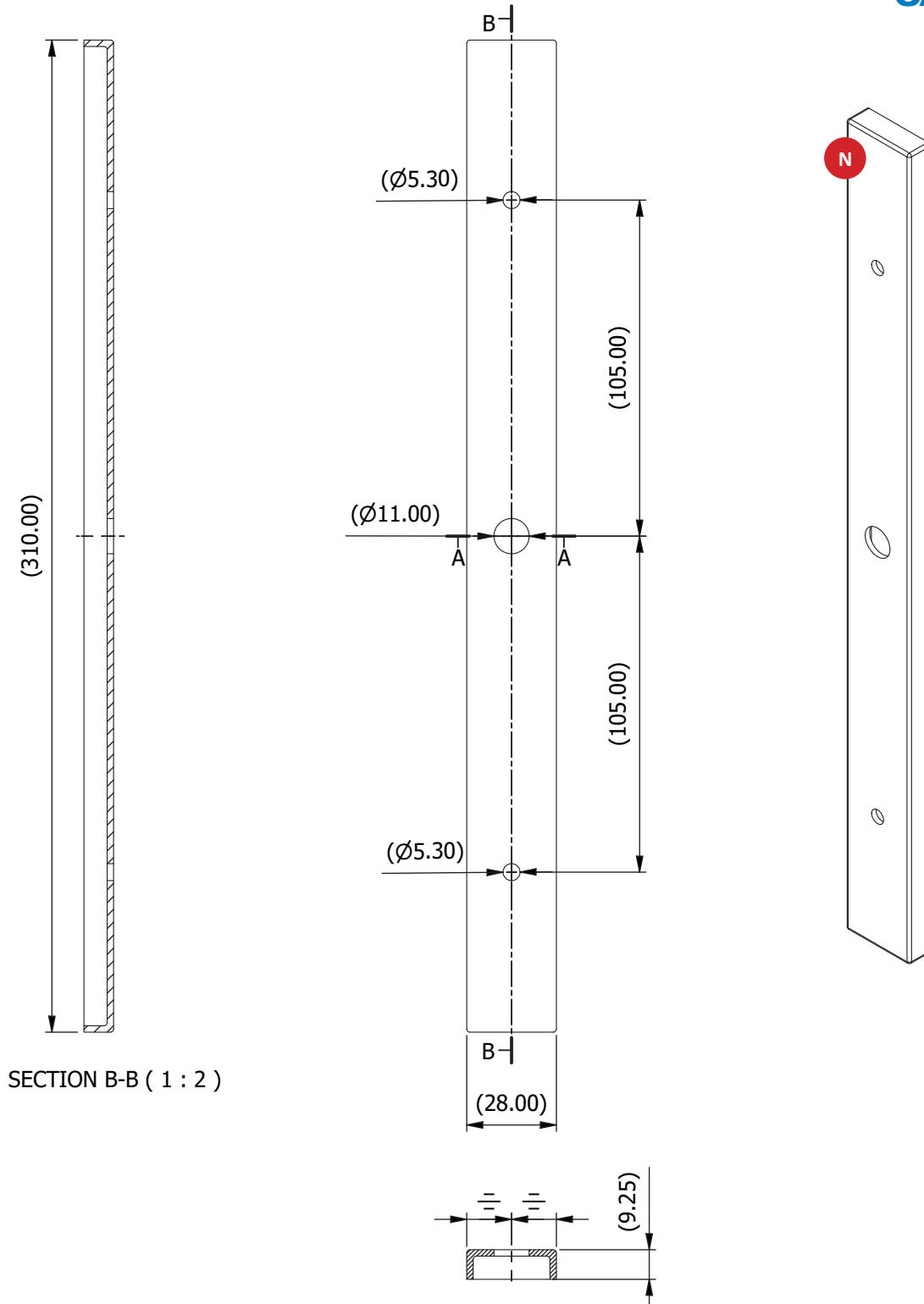
Shim Kits are available to reduce the gapping between doors if required.
The shims can be placed behind the hinge assemblies to increase the overall thickness

Bi-fold Door Locking Shootbolt Gearbox



M	PART CODE	BOX QTY.
	CBF60000	10

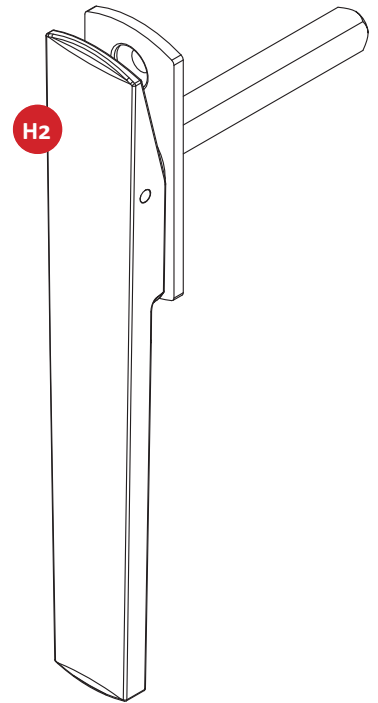
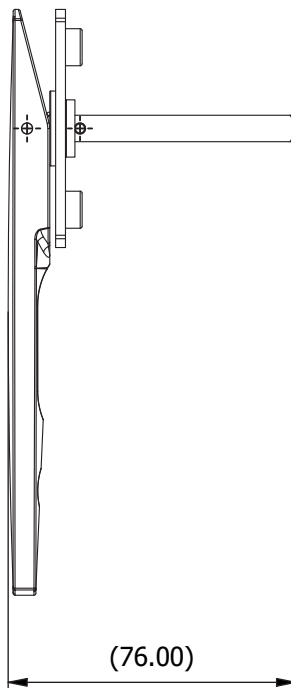
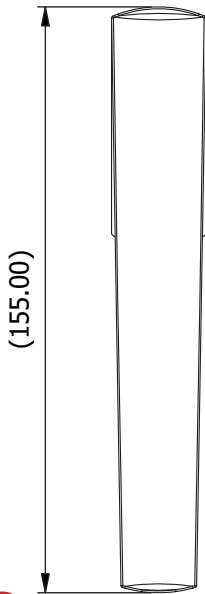
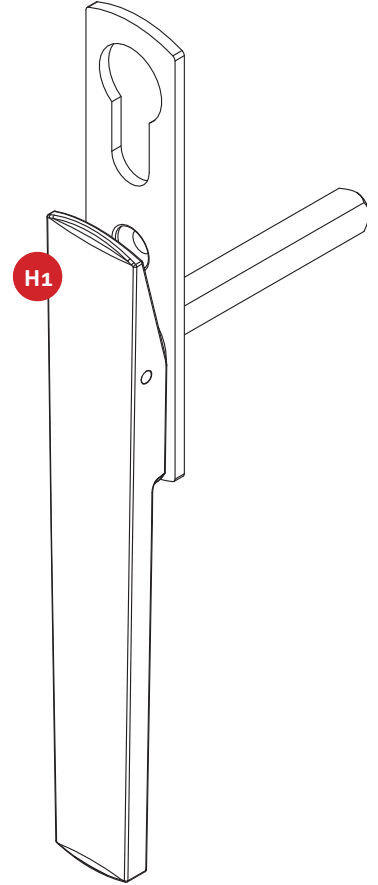
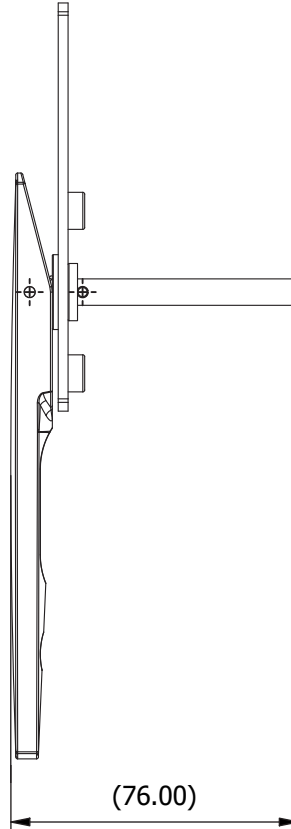
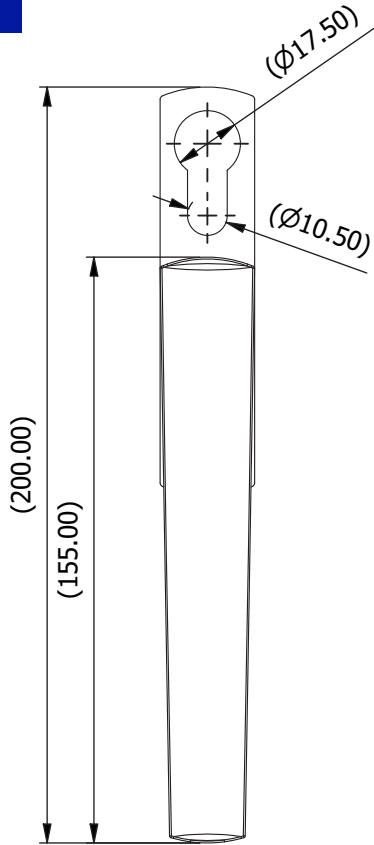
Cover for Bi-fold Door Shootbolt Gearbox



BLACK RAL9005	BOX QTY.
CBF61000	10



Bi-fold Door Flat Handle with or without Escutcheon

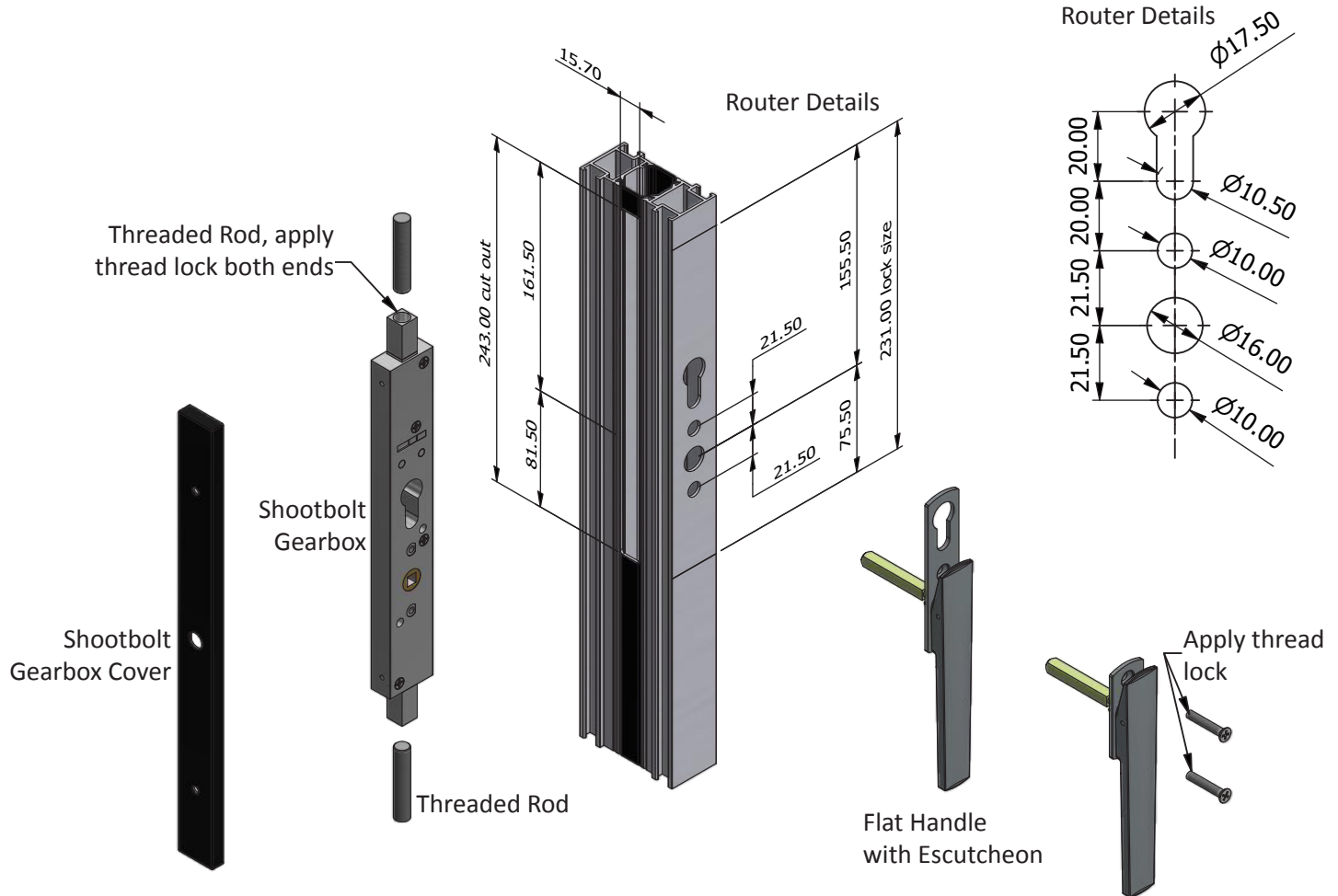


H1

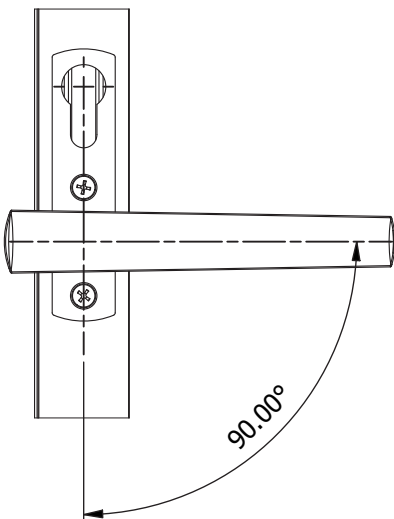
H2

FINISH	WITH ESCUTCHEON	WITHOUT ESCUTCHEON	BOX QTY.
HIPCA WHITE	CBF10000	CBF11000	10
CHROME	CBF10002	CBF11002	10
BRUSHED STEEL	CBF10003	CBF11003	10
GOLD	CBF10009	CBF11009	10
BLACK RAL9005	CBF10005	CBF11005	10

Bi-fold Door Shootbolt & Flat Handle Standard Fitting Instructions / Router Details

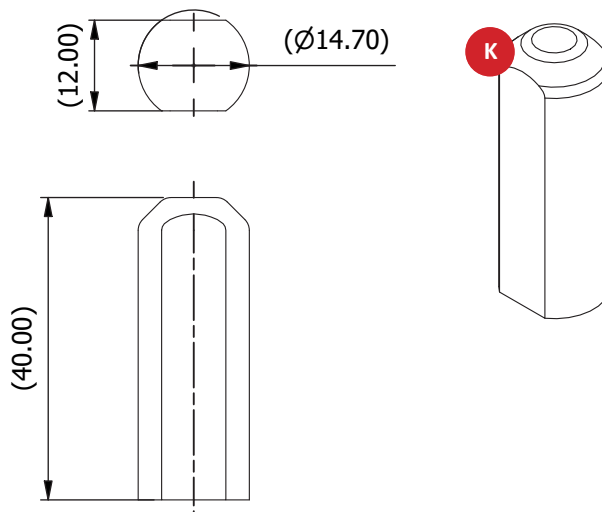
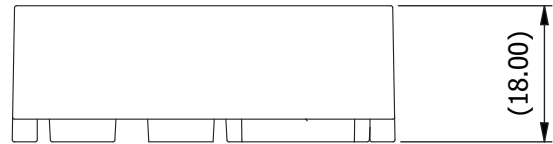
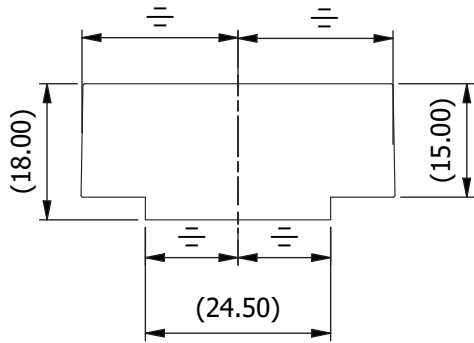
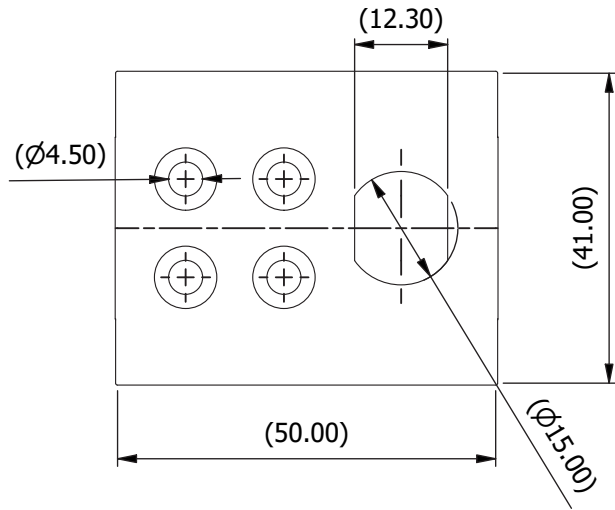
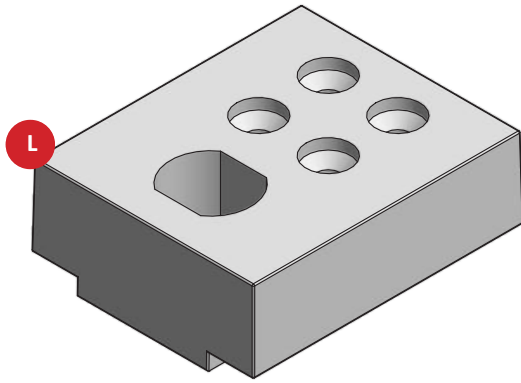


To achieve 23mm max throw
Turn handle through 90°



Caldwell handles are available in two variations;
 With escutcheon (cylinder provision)
 Without escutcheon (no cylinder provision)
 Important note - if cylinder provision is not a requirement
 Then without escutcheon backplate should be used
 No cylinder router details will be required

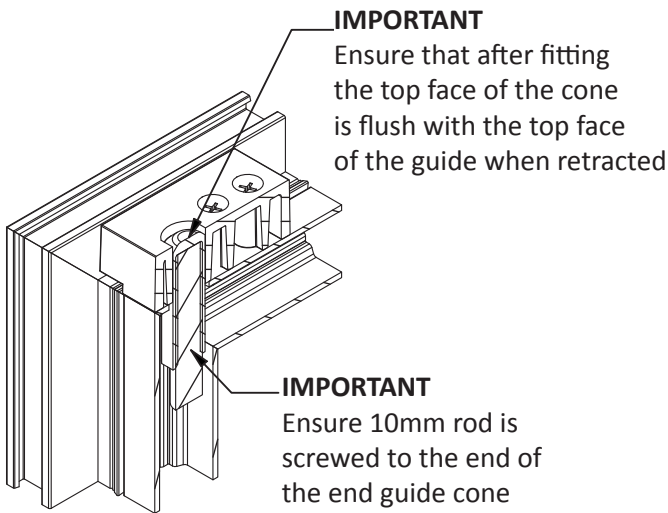
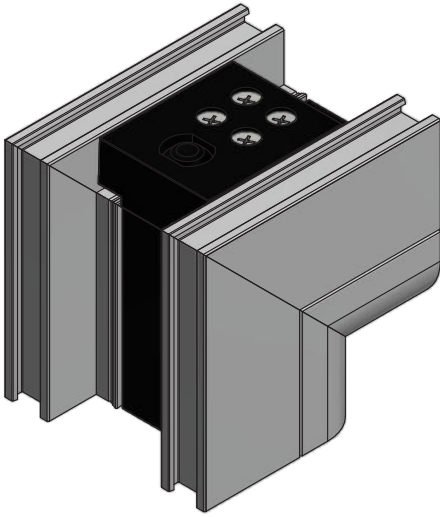
Bi-fold Door Guide and Cones



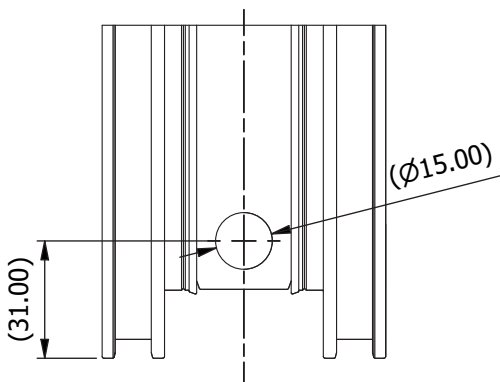
TYPE	M10 x 1500mm	BLACK RAL9005	BOX QTY.
ROD	CBF61500	-	5
CONE	-	CBF62000	50
GUIDE	-	CBF62100	50



Bi-fold Door Guide and Cone Fitting Instructions



Pre drilled hole specification

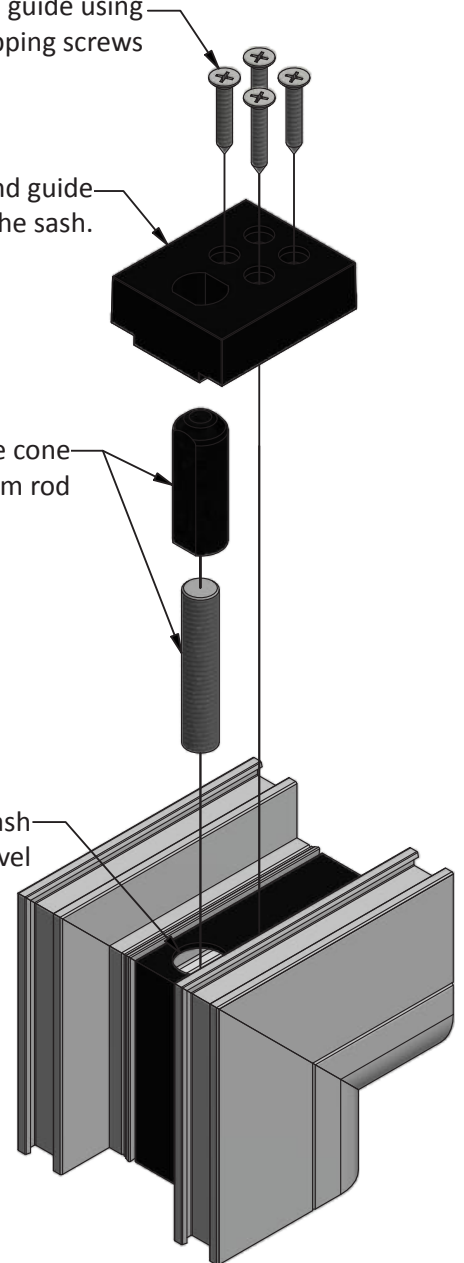


Step 4 - Secure end guide using 4 off 4.2x25mm Self tapping screws

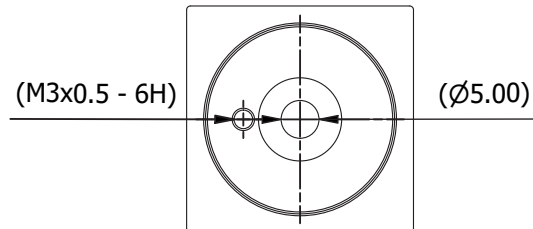
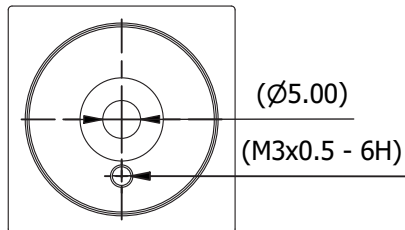
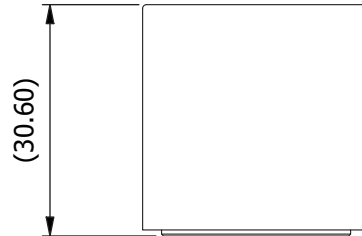
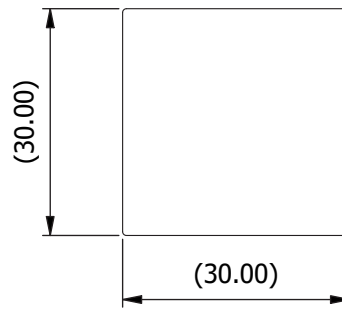
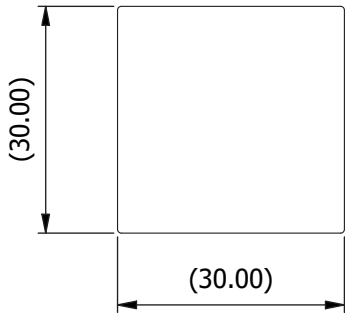
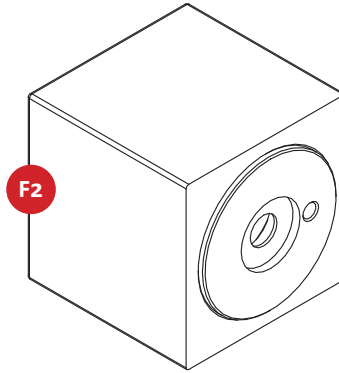
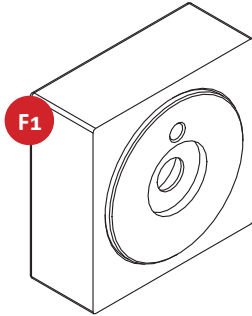
Step 3 - Mount the end guide body on the face of the sash.

STEP 2 - Screw end guide cone on to the end of the 10mm rod

STEP 1 - Pre drill hole in Sash to allow shoot bolt travel



Square Bi-fold Door Magnets



F1
F2

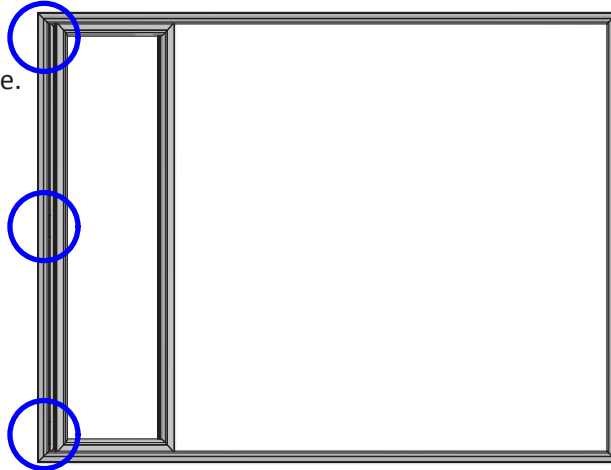
SIZE	HIPCA WHITE	CHROME	BRUSHED STEEL	BLACK RAL9005	BOX QTY.
26mm	CBF72600	CBF72602	CBF72603	CBF72605	10
60mm	CBF76000	CBF76002	CBF76003	CBF76005	10



Bi-fold Door Install Order Example Layout

STAGE 1

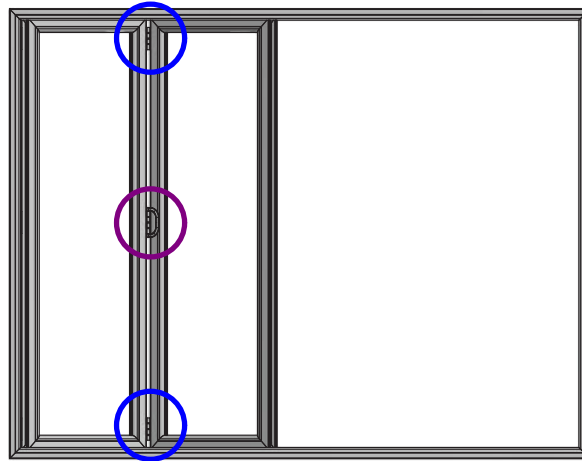
Fit first door sash to frame.



HINGE
ASSEMBLY
x 3

STAGE 2

Fit next door sash to
Previous door sash.



HINGE
ASSEMBLY
x 2

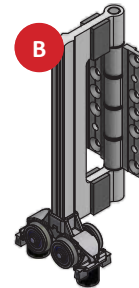
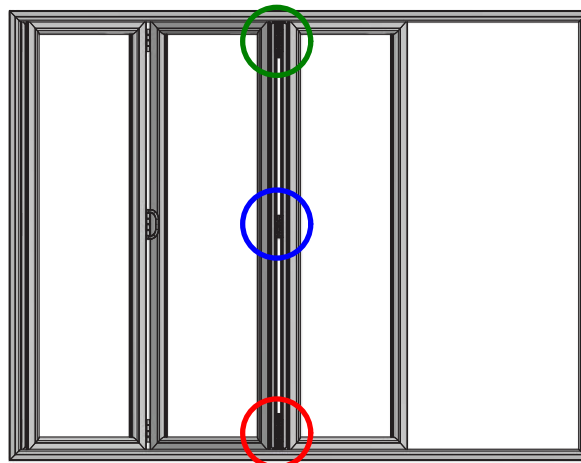


D-HANDLE
HINGE
ASSEMBLY
x 1

STAGE 3

Fit next door sash to
Previous door sash.

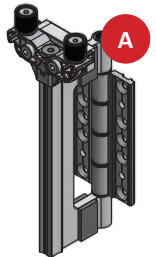
WARNING: ensure
Roller assembly wheels
Are sitting on track at
The bottom and guide
Bushes are sufficiently
Engaged in top frame
Profile.



ROLLER
ASSEMBLY
x 1



HINGE
ASSEMBLY
x 1



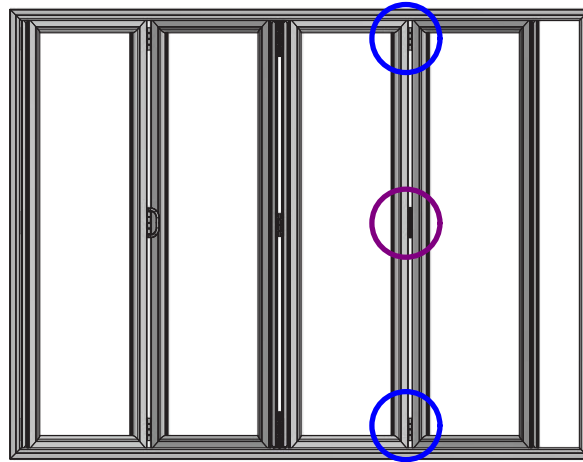
TOP
GUIDE
ASSEMBLY
x 1



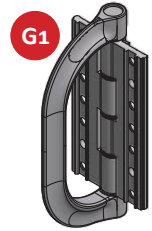
Bi-fold Door Install Order Example Layout

STAGE 4

Fit next door sash to Previous door sash.



HINGE ASSEMBLY x 2

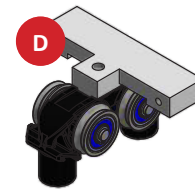
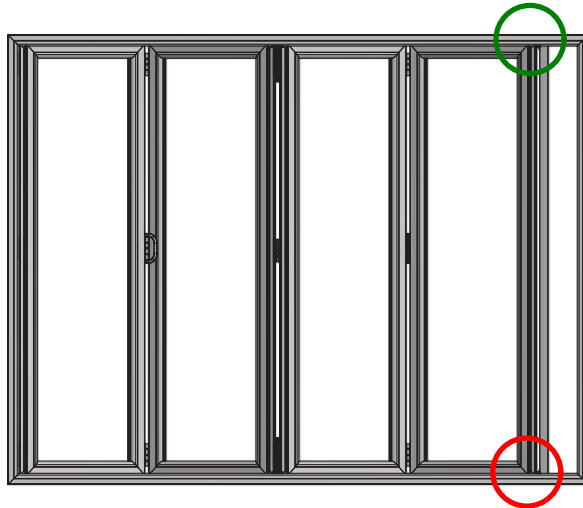


D-HANDLE HINGE ASSEMBLY x 1

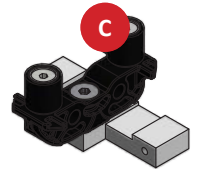
STAGE 5

Fit mullion roller & Mullion guide to Mullion profile, Located in frame.

WARNING: ensure Mullion roller wheels are sitting on track at the bottom and guide bushes are sufficiently engaged in top frame profile.



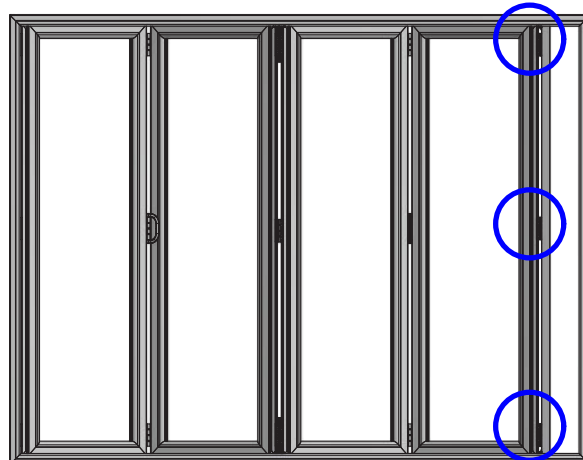
MULLION ROLLER ASSEMBLY x 1



MULLION GUIDE ASSEMBLY x 1

STAGE 6

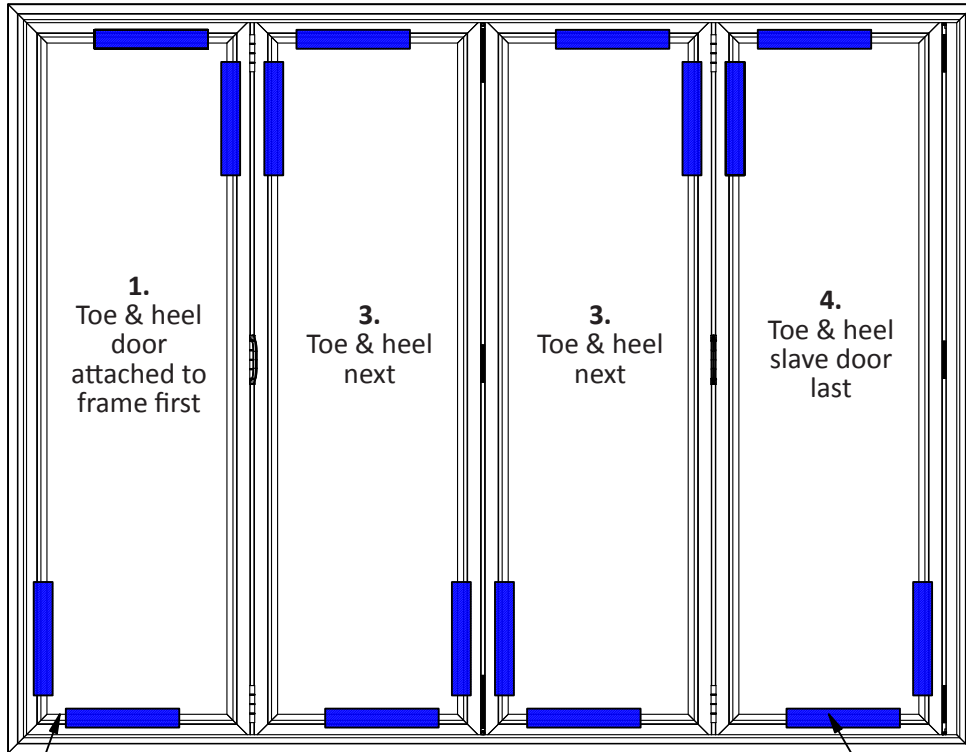
Fit mullion profile to previous door Sash.



HINGE ASSEMBLY x 3

Bi-fold Door Toe and Heel Guidance Example Layout

Toe and heel the panel attached to the frame first and work towards the slave door.
A variety of different packers will be required depending



IMPORTANT:
Always pack the base of the unit first then pack the top

Make sure the door is level after toe and heeling (adjust amount / size of packers if necessary).
Check bi-fold and any locking system works correctly.

Blue sections indicate where to toe & heel on each door

**This is a guide only to toe and heeling bi-fold doors.
Each set of doors are different and will require different levels of packing.
Installers must therefore use their own judgement or refer to an experienced installer.**

Manufactures Warranty

1. Subject to the conditions set out below **CALDWELL HARDWARE (UK) LIMITED (the Seller)** warrants that all roller, guide, hinge & handle products for use in doors of the type known as Fold & Slide Doors or Bi-Fold Doors hereinafter known as **the goods** will correspond with their specification at the time of delivery and will be free from defects in material and workmanship for a period of 10 (ten) years from the date of their initial use or 10 (ten) years from the date of delivery whichever is the first to expire.

2. The above Warranty is given by the Seller subject to the following conditions: -

- 2.1 the Seller shall be under no liability in respect of any defect in the Goods arising from any drawing, design, or specification supplied by the Buyer;
- 2.2 the Seller shall be under no liability in respect of any defect arising from fair wear and tear, wilful damage, negligence, failure to follow the Seller's installation and/or adjustment instructions (whether oral or in writing), misuse or alteration, or failure to maintain the Goods in accordance with the Seller's maintenance schedule;
- 2.3 the Seller shall be under no liability in respect of any defect arising from failure to install and maintain the doors to which the Goods become attached after Sale in accordance with the door manufacturer's instructions (whether oral or in writing);
- 2.4 the Seller shall be under no liability under the above Warranty (or under any other warranty condition or guarantee) if the total price for the Goods has not been paid by the due date for payment;
- 2.5 the Seller shall be under no liability to replace any goods which have deteriorated due to them being used in extreme climates such as coastal areas or marine environments, the Hardware should not be used within a 6.5 miles radius of these environments with aggressive corrosive climates or atmospheres e.g. sea air, swimming pools, industrial and or in a place with other metals or materials that could trigger a corrosive reaction.

3. Subject as expressly provided in these conditions and except where the Goods are sold to a person as a consumer (within the meaning of the Unfair Contract Terms Act 1999) all warranties, conditions, or other terms implied by statute or common law are excluded fully permitted by law.

4. Where the Goods are Sold under a consumer transaction (as defined by the Consumer Transactions Restrictions on Statements Order 1976) the statutory rights of the Buyer are not affected by these Conditions.

5. Any claim by the Buyer which is based on any defect in the quality or condition of the Goods or their failure to correspond with specification shall (whether or not delivery is refused by the Buyer) be notified to the Seller within 7 (seven) days from the date of delivery or (where the defect or failure was not apparent on reasonable inspection) within a reasonable time after discovery of the defect or failure. If delivery is not refused and the Buyer does not notify the Seller accordingly the Buyer shall not be entitled to reject the Goods and the Seller shall have no liability for such defect or failure and the Buyer shall be bound to pay the price as if the Goods had been delivered in accordance with the Contract.

6. Where any valid claim in respect of any of the Goods which is based on any defect in the Quality of condition of the Goods or their failure to meet specification is notified to the Seller in accordance with these Conditions the Seller shall be entitled to replace or repair the Goods (or the part in question) free of charge or, at the Seller's sole discretion, refund to the Buyer the price of the Goods (or a proportionate part of the price) but the Seller shall have no further liability to the Buyer.

7. Except in respect of death or personal injury caused by the Seller's negligence the Seller shall not be liable to the Buyer by reason of any representation or any implied warranty condition or other term or any duty at common law or under the express terms of the Contract for any consequential loss or damage (whether for loss of profit or otherwise) costs expensed or other claims for consequential compensation whatsoever (and whether caused by the negligence of the Seller its employees or agents or otherwise) which arise out of or in connection with the supply of the Goods or their use or result by the Buyer except as expressly provided in these Conditions.

Quarterly Maintenance Requirements

It is essential for Fold & Slide Doors or Bi-Fold Doors to have a quarterly service, that the top and bottom tracks are clean and free from any foreign objects or obstructions. The doors and moving sashes should be checked and cleaned regularly for ease of movement and if you feel resistance when opening or closing the doors, stop and inspect the hinges and runners for any debris or obstructions. To clean the track, use a clean cloth and a household vacuum cleaner with a narrow attachment to collect any dust or grit that can damage the track, all moving parts, hinges, guides and rollers should be wiped clean and lubricated using 3 in 1 multi-purpose oil or similar which lubricates, cleans and prevents rust.



Typical Multi-panel Bi-fold Door

The Caldwell Hardware range of fold and slide door hardware is rated to a SWL (Safe Working Load) of 100Kg per panel.

The maximum rated panel size is 1000mm wide x 2400mm high. If using standard 4mm and 6mm double glazing thicknesses then all panel sizes can be accommodated up to the maximum size.

If using some heavy speciality glasses such as acoustic glass, it can be possible to have a small but very heavy panel. This can lead to lateral overloading on the top guides and rollers. A “width to height” rule is used to prevent this over load from occurring. See table below.

The wider the panel width is in comparison to the height, then the higher the lateral loading is applied to the hardware. This is because the width is a higher proportion of the height and this results in a higher leverage between the panels centre of gravity and the top guide.

Width To Height Ratio Table

		HEIGHT (mm)						
		1800	1900	2000	2100	2200	2300	2400
WIDTH (mm)	700	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	725	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	750	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	775	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	800	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	825	98.2 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	850	95.3 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	875	92.6 kg	97.7 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	900	90.0 kg	95.0 kg	100 kg	100 kg	100 kg	100 kg	100 kg
	925	87.6 kg	92.4 kg	97.3 kg	100 kg	100 kg	100 kg	100 kg
	950	85.3 kg	90.0 kg *	94.7 kg	99.5 kg	100 kg	100 kg	100 kg
	975	83.1 kg	87.7 kg	92.3 kg	96.9 kg	100 kg	100 kg	100 kg
1000	81.0 kg	85.5 kg	90.0 kg	94.5 kg	99.0 kg	100 kg	100 kg	

This table is not required for 4mm and 6mm double glazing. When compared to the maximum weight sample panels stated in BS EN 1527:2013 then the above weights exceed these by 20%.

* Example SWL calculation as follows :

$$950w \times 1900h \text{ panel size} = (0.45 / (950/1900)) \times 100 = 90Kg$$

Test sizes = 750w x 2000h = 750/2000 = 0.375. Therefore 0.375 + 20% = 0.45 Caldwell maximum ratio.