

cowdroy

ALLWEATHER

EXTERNAL BI-FOLDING DOOR SYSTEM | 90KG PER PANEL



EXTERNAL BI FOLD DOOR SYSTEM

Overview

A top hung multi-folding system for internal and external applications such as patio doors, enclosures and partitions. The system is designed such that all doors will be equal sized allowing for ease of ordering and installation.

Components are made from Stainless steel with a Brushed Stainless finish, 25 micron Clear Anodised Aluminium Top Track, Mill finish bottom Guide Channel and tough, durable Nylon wheels for a smooth and quiet operation.

The system features complete adjustment capabilities at every hanger and pivot point including unique lateral adjustments to top and bottom pivots.

Component kits make it easy to specify and are available in universal kits suitable for both Left and Right hand applications. All component adjustment and clamping screws incorporate allen key heads for more reliable functioning. The required allen keys are included in the kits.

Application

Designed for timber folding door applications but may also be used with aluminium.

Suitable for Commercial folding door partitions in applications such as between communal areas as well as external applications such as patio doors, windows and enclosures.

Specification

Number of doors	8 each way
Maximum door weight	90 kg
Maximum door width	900 mm
Maximum opening width	12000 mm
Maximum door height	3000 mm
Minimum door thickness	35 mm

Materials

Aluminium top track in Clear Anodised.

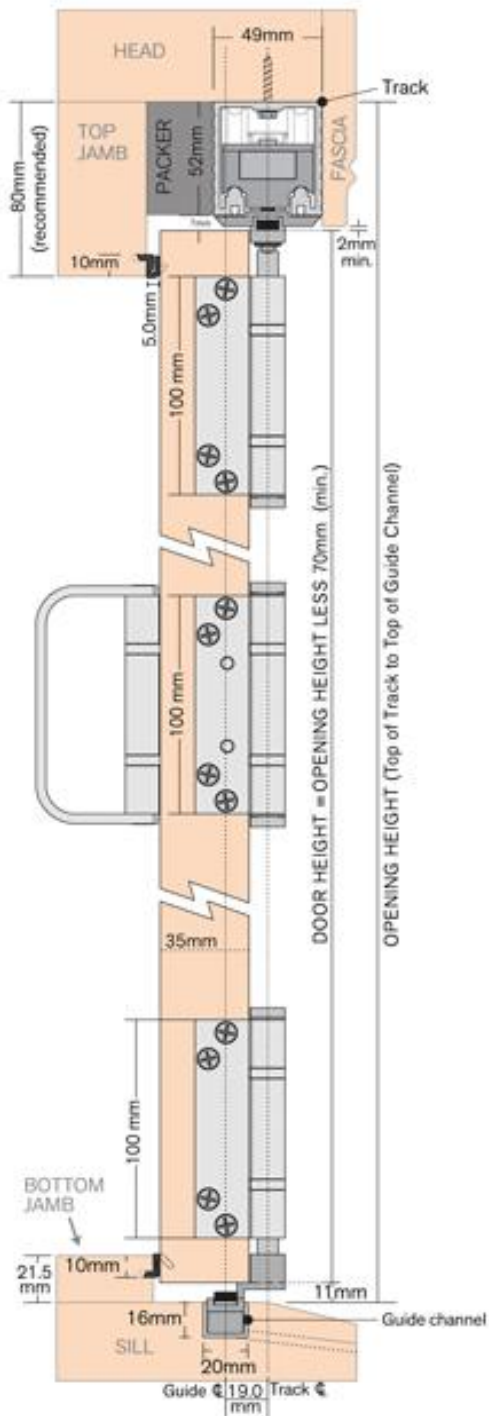
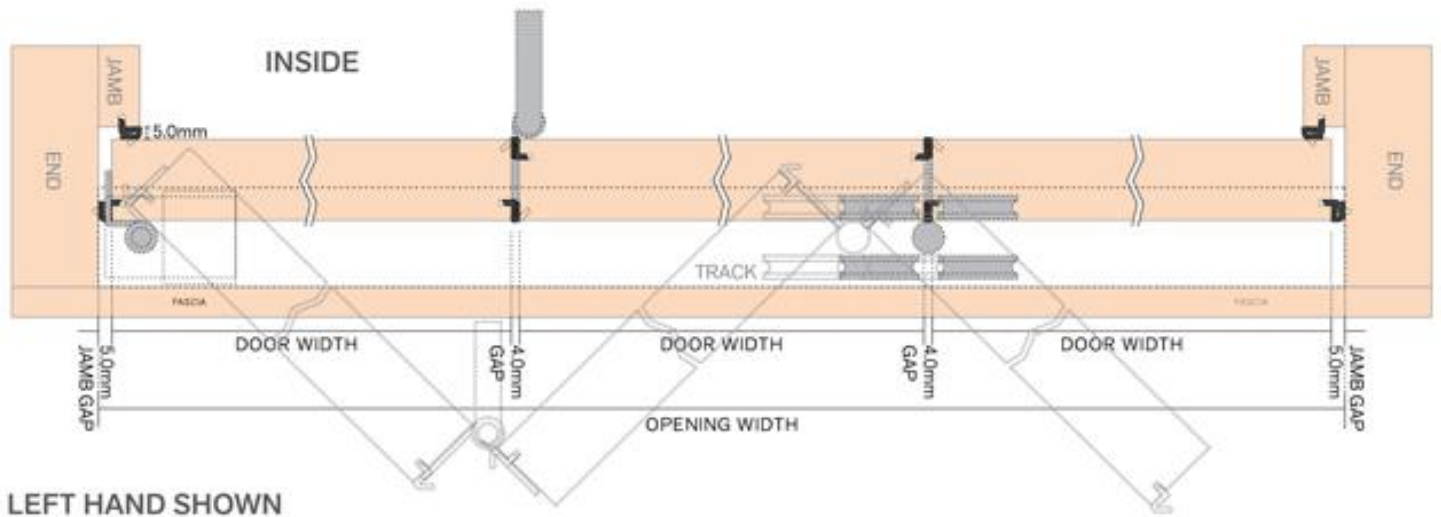
Aluminium bottom guide in Mill finish.

316SS block castings.

16mm precision sealed bottom guide Stainless Steel bearings.

38.8mm diameter Delrin concave wheel with precision Stainless Steel sealed bearing.

304SS hinge/hanger leafs and pin.



Main Door Locking Options:

Timber Doors:

WT020 WT025 - 60mm

W1250SN



Locked

Unlocked

Secondary Locking Options:



Flushbolts range available in both Round Top & Square Top:

140mm Locking (C4 cylinder)

140mm Non-Locking

210mm Locking (C4 cylinder)

210mm Non-Locking

400mm Non-Locking

Door Furniture Options:



Swan



Turnut



Hunter



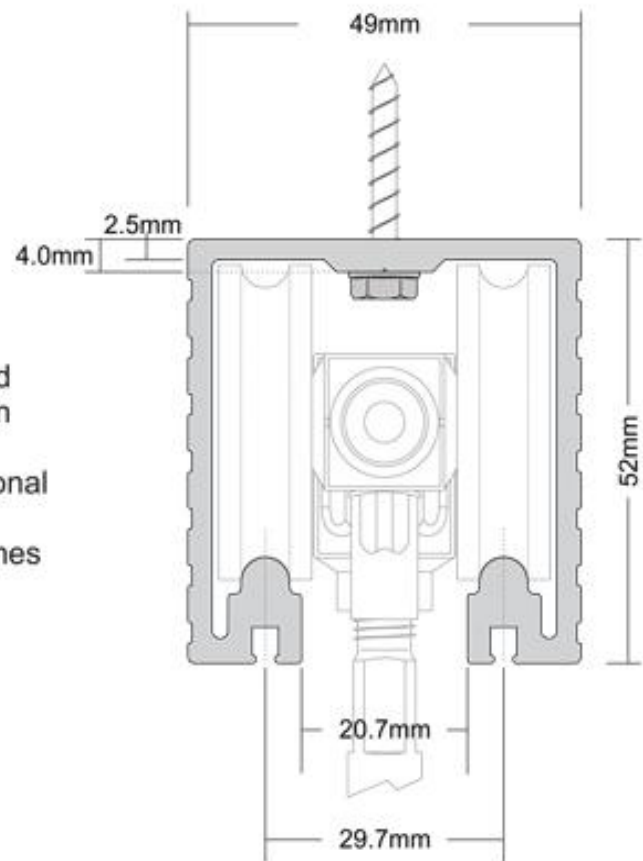
Manly

Track and Guide Detail

Top Track

The robust AllWeather top track is constructed from 6060 alloy with T5 temper and finished in Clear Anodising. Standard wall thickness of 2.5mm plus additional 1.5mm thickness to the top fixing point. It has a weight of 1.638 kg per metre and comes standard in 6.0 metre lengths.

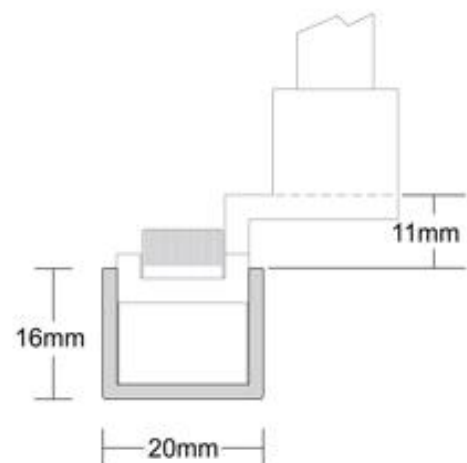
AW82062 Aluminium Track 6.0m C/A



Bottom Guide Channel

The AllWeather bottom guide channel is constructed from 6060 alloy with T5 temper in mill finish. It has a wall thickness of 1.6mm and comes standard in 6.0 metre lengths.

TT84911 Aluminium Guide Channel 6.0m Mill



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System Overview

Door Width Calculation

FORMULA:

Opening Width (OW)

Number Of Doors (ND)

Jamb Gap (JG) = 10mm (2 X 5mm)

Hinge Gaps (HG) = (ND - 1) X 4mm

Door Width (DW)

$$DW = \frac{OW - (JG) - (HG)}{ND}$$

Door Sealing

Appropriate jambs, header and sills are required along with the use of weather resistant seals such as **AW80800** Perimeter Seal (AQ-21).

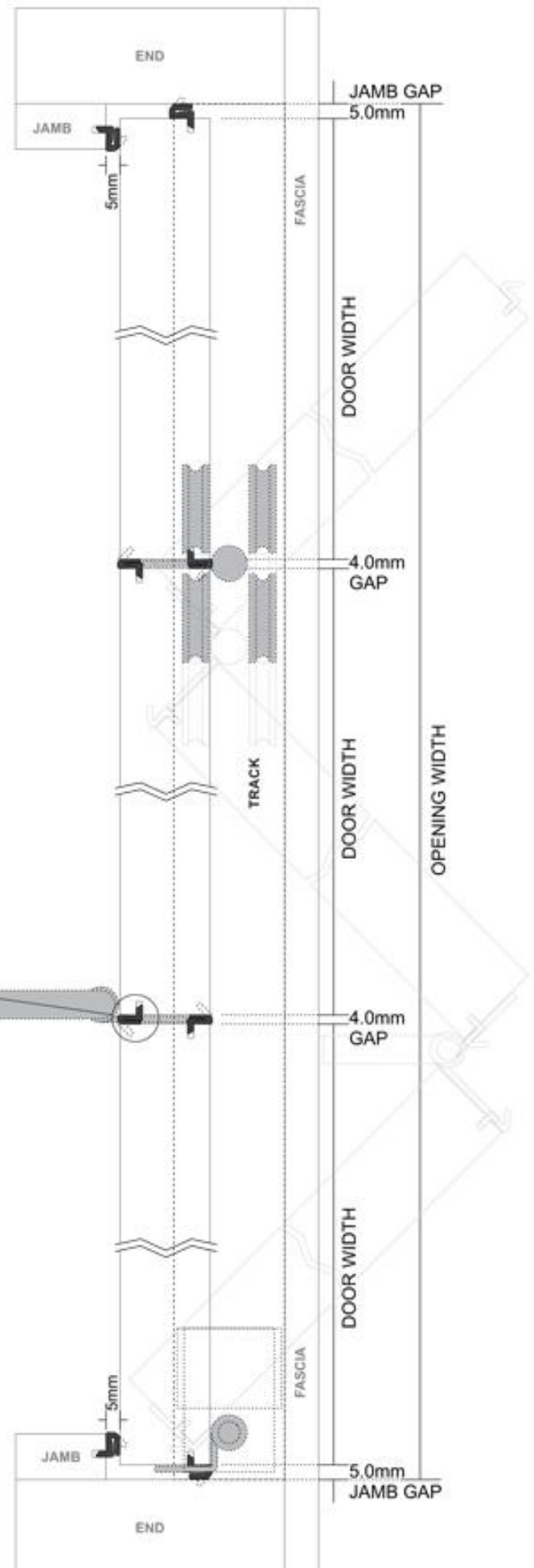


Door Locking

Primary door lock on an entrance leaf (generally the odd leaf) should be via a suitable mortice lock set with an adequate backset.

Secondary locking (or locking on even leaves) should be via suitable flush bolts to top and bottom of intermediate doors.

Refer to the Locking Options section of this document for further information on locks.



System Overview

Top Pivot

The AllWeather top pivot features a unique lateral adjustment which incorporates a rack and pinion mechanism for reliable, accurate and smooth adjustment without the need to loosen the pivot clamp.

All pivot and hanger pins are also height adjustable via an allen key in one quarter turn increments to allow accurate adjustment.



Knuckle Design

AllWeather has been designed so that, where possible, all knuckles are suited with double bearings, including the pivot plates and end hangers.

Only the meeting hardware has solid knuckles due to the interlocking design. The hinge leaves are of the "fast fix" non mortice type to speed up the installation process.

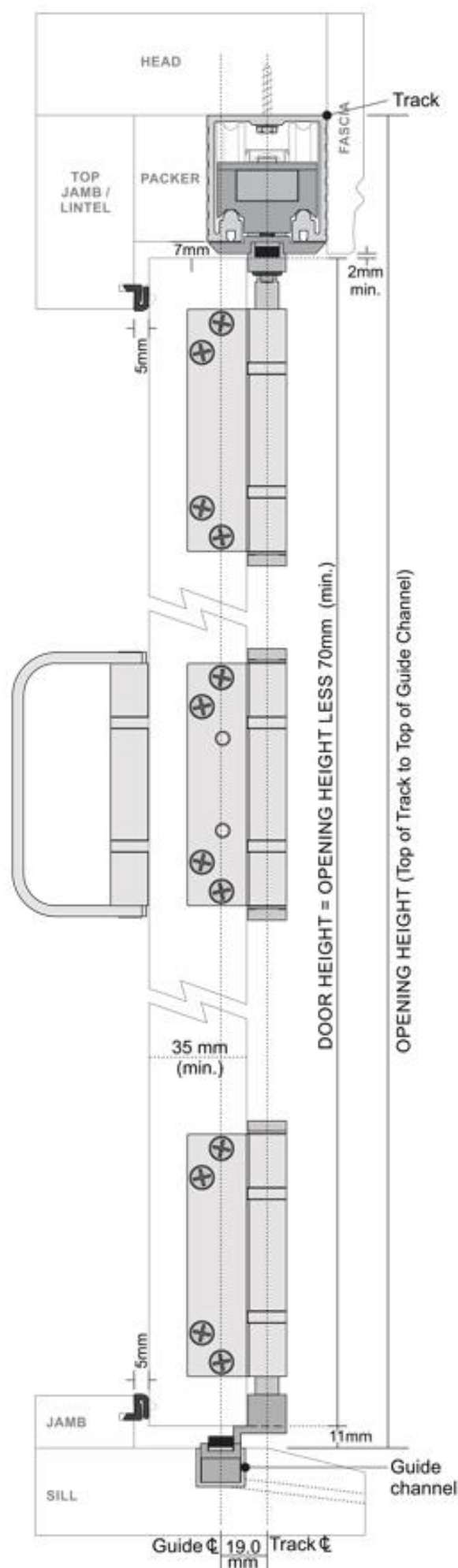


Bottom Pivot

The AllWeather Bottom Pivot sits neatly within the guide channel and features a mechanical final adjustment.



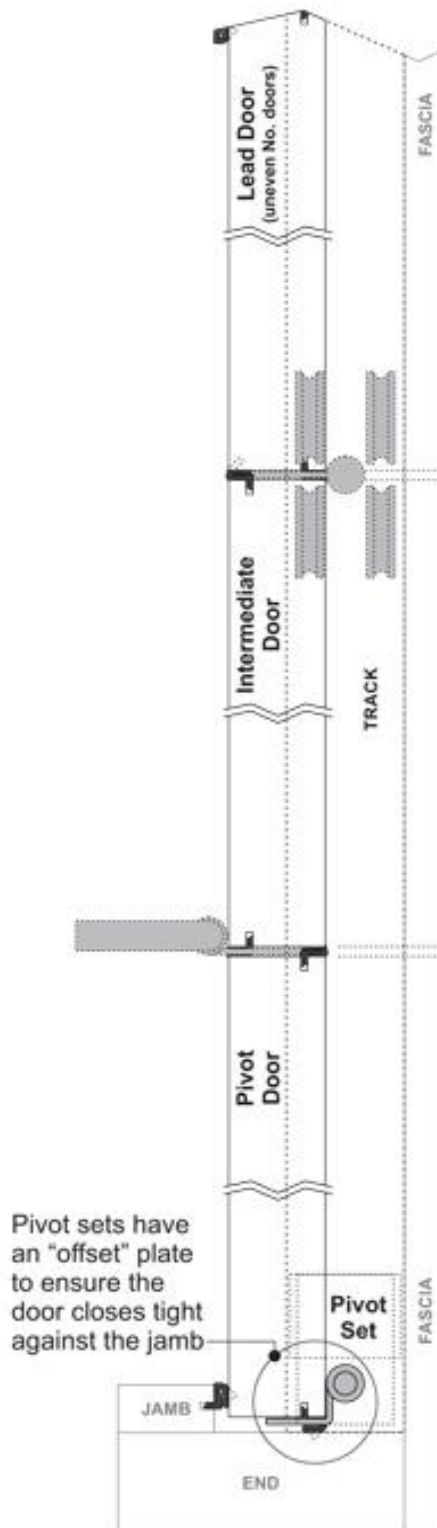
The slimline bottom guide channel is positioned beneath the door leaves and is concealed when the door unit is closed for a cleaner, unobtrusive sight line. The bottom channel is extruded aluminium.



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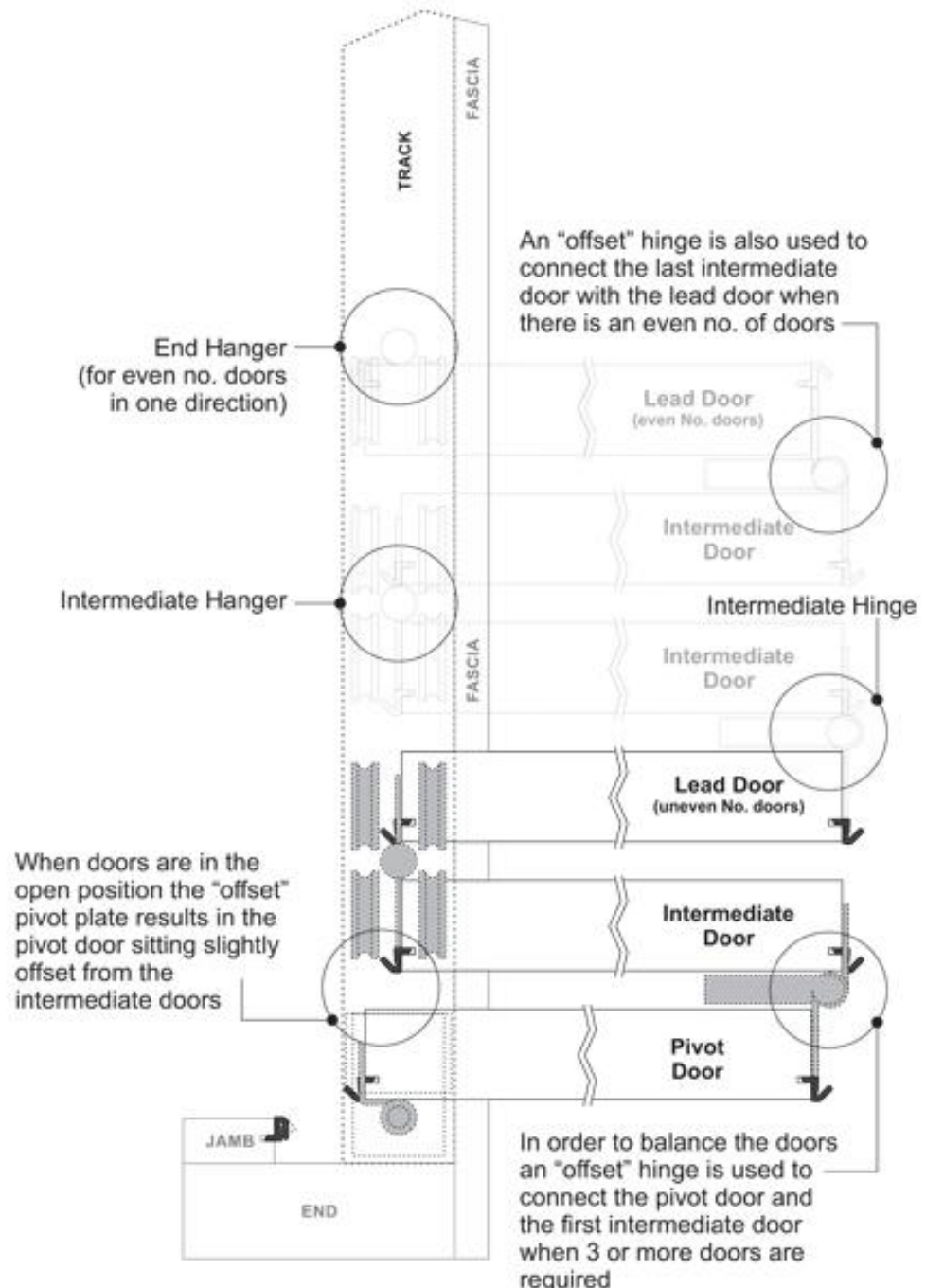
Hinges - context of use

The below diagram shows the context of use of the offset hinge as opposed to standard hinge on typical outward opening bi-fold doors.



Typically **Offset hinges** are used to:

1. Connect **pivot doors to intermediate doors** when 3 or more doors in one direction are required.
2. Connect **intermediate doors to lead doors** when there is an even number of doors in one direction.



Typically **Standard hinges** are used to:

1. Connect **intermediate doors to intermediate doors**.
2. Connect **pivot doors to lead doors** in a 2 door setup.

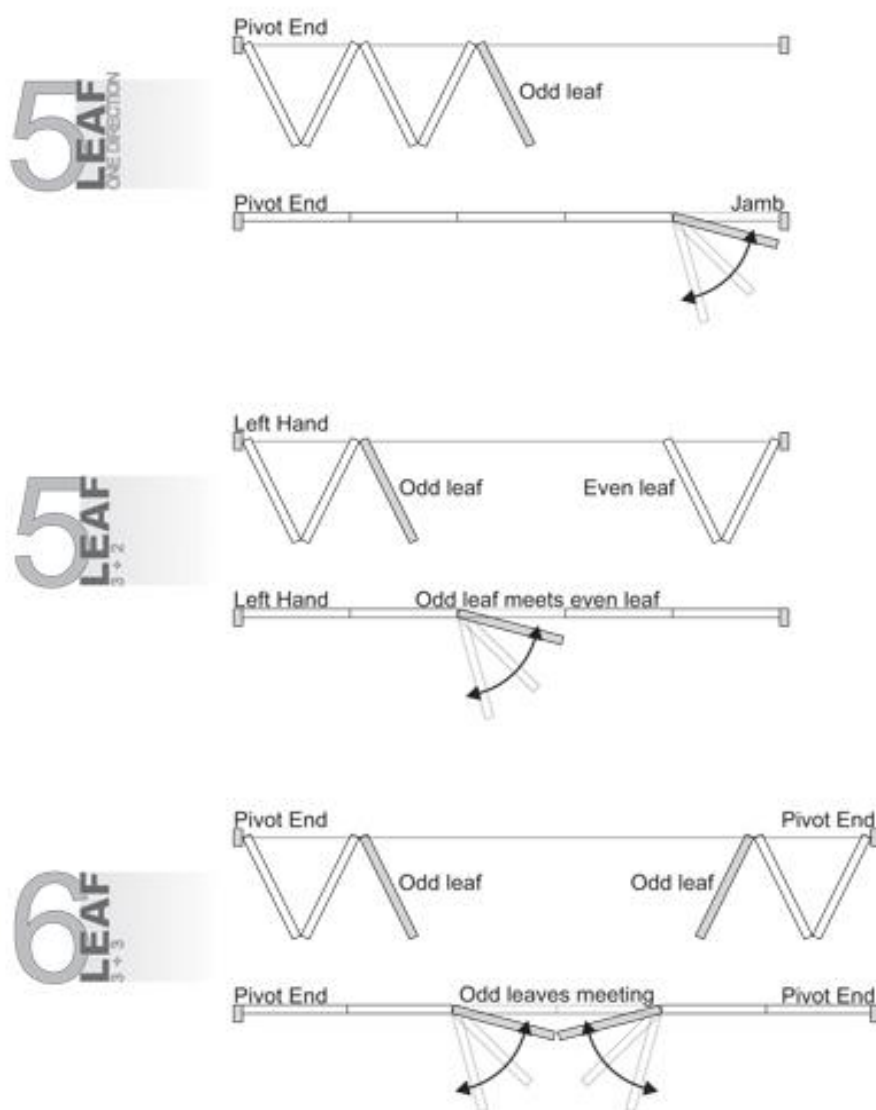
Locking Options

On bi-fold doors with an odd number of leaves travelling in a single direction the lead leaf can often be operated as a stand alone door, or an "entrance leaf", provided:

1. The lead leaf meets the door jamb; or
2. The lead leaf meets another leaf which is either anchored, or locked, in order to be used as a jamb.

Leaves can be anchored or locked via the use of top and bottom flush bolts or a multi-point lock (for aluminium doors).

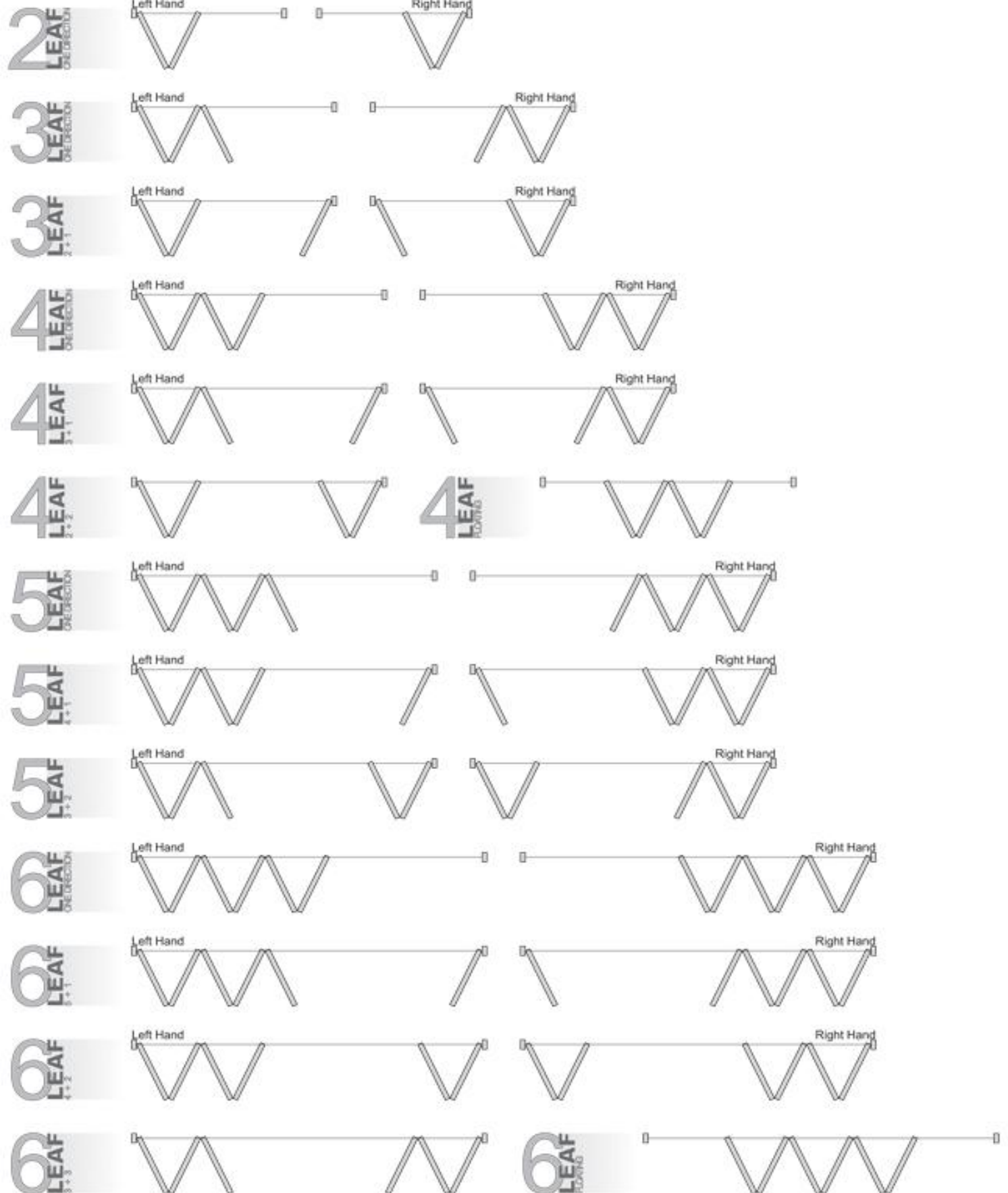
Refer examples below:



ENTRANCE LEAVES should be primarily locked via a suitable mortice lock with an adequate backset, appropriate cylinder and matching door furniture.

Non-entrance leaf locking (or anchoring) should be via the use of top and bottom flush bolts.

Door Configurations

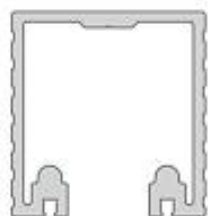


EXTERNAL BI FOLD DOOR SYSTEM

Door Configurations



Component Configurations



AW82062
Aluminium Track



TT84911
Aluminium Guide Channel



Configuration Code	Total No. of LEAVES	DOOR CONFIGURATIONS			COMPONENT BREAKDOWN PER CONFIGURATION					
		Doors ONE WAY	Doors OPP. WAY	Doors Opening Floating	AW883SS PIVOT SET	AW885SS END SET	AW886SS INTERMED SET Standard	AW888SS MEETING SET LH + RH	AW483SS HANDLE HINGE SET Standard	AW488SS HANDLE HINGE SET Offset
220	2	2			1	1			1	
330	3	3			1		1			1
321	3	2	1		1	1			1	
440	4	4			1	1	1			2
431	4	3	1		2		1			1
422MT	4	2	2		2			1	2	
440FL	4			4		2	1			2
550	5	5			1		2		1	1
541	5	4	1		2	1	1			2
532	5	3	2		2	1	1		1	1
660	6	6			1	1	2		1	2
651	6	5	1		2		2		1	1
642	6	4	2		2		1	1	1	2
633	6	3	3		2		2			2
770	7	7			1		3		2	1
761	7	6	1		2	1	2		1	2
752	7	5	2		2	1	2		2	1
743	7	4	3		2	1	2			3
880	8	8			1	1	3		2	2
871	8	7	1		2		3		2	1
862	8	6	2		2		2	1	2	2
853	8	5	3		2		3		1	2
844	8	4	4		2		2	1		4
880FL	8			8		2	3		2	2

Door track, guide channel and seals requirements are dependent on width and height opening sizes.