

HIGH-PERFORMING & PANORAMIC



AMBIAL DOOR The Folding Door

High Performance & Sustainable



By  Hydro



AMBIAL

/ THE ORIGINAL HIGH-PERFORMANCE XXL OPENINGS

The AMBIAL folding door can be fully opened inwards or outwards, offering you a panoramic view, flooding rooms with natural light and blurring the boundaries between indoors and outdoors.

HIGH PERFORMING

Designed to be both durable and easy to use, the AMBIAL folding door can incorporate up to 10-leaves with a maximum height of 3m for an opening of 12m wide. This folding door can be configured in a straight line or open corner without visible posts.

SLEEK DESIGN

The finishes have been designed with the greatest attention to detail, to offer a harmonious appearance, both when open or closed. The frames are flush-fitting, with slim, well-balanced profiles. The upper and lower rollers and fixings are covered, to give a uniform overall look, even when open. Drainage is concealed to ensure a flush design.

LARGE CHOICE OF CONFIGURATIONS

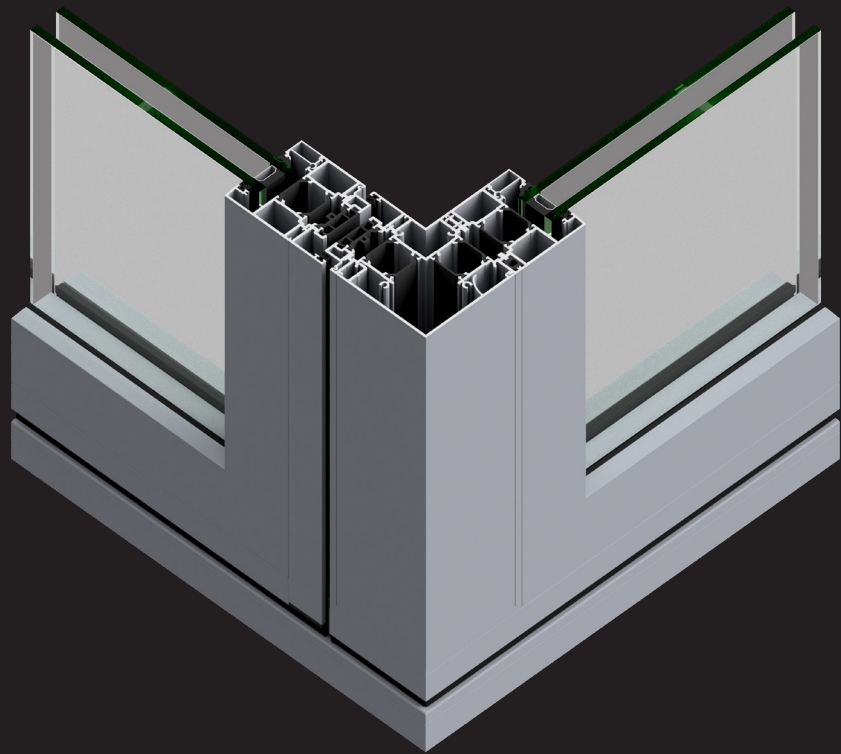
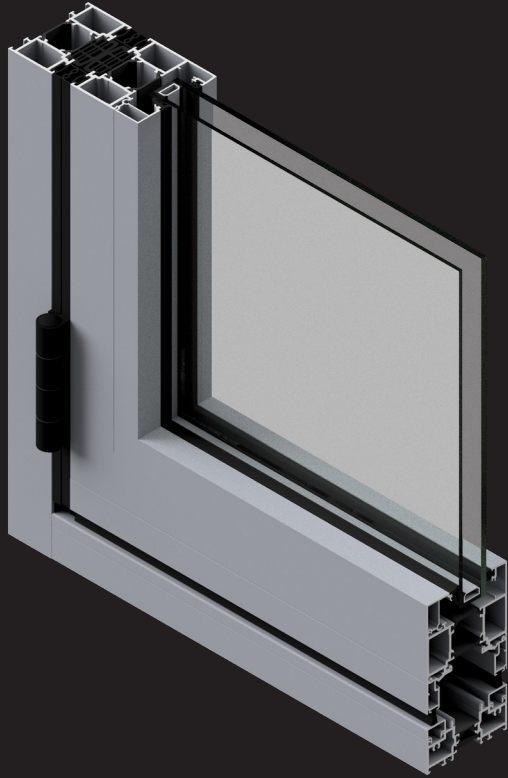
Whether in line or with an open corner, inward or outward opening, from the centre or one of the sides, AMBIAL is designed to suit all architectural styles, whether a new-build or renovation.



A Cradle to Cradle certified product - Bronze Level

AMBIAL

/ THE MULTI-SPACE FOLDING DOOR



KEY FEATURES AND INNOVATIONS

LARGE DIMENSIONS

- Large sizes available up to 1200mm x 3000mm (WxH) per leaf, with possible configurations from 1-10 leaf for the straight line version with an opening up to 12m wide and from 2-10 leaf for the corner version
- Weight up to 150 kg per leaf
- Glazing thickness from 9 - 59mm

RELIABILITY AND PROTECTION

- Secure design to keep the door on its upper and lower tracks, thanks to AMBIAL's anti-derailment and anti-lift function
- Option to lock the immediate leaves with ultra flat handles so the profiles or keys don't risk damage in the folded position
- Locks adapted depending on the function: 2 points with or without key, 3 points with key, or 2 lever points for semi-fixed leaf
- Blocking magnets to protect the door from any shocks when in the open position, when it is windy or if the door is incorrectly operated
- Security system to prevent the intermediate leaves being opened when the main door is closed
- Protective space between gaskets to protect fingers from being trapped
- Optional anti-slip threshold frame

AESTHETICS AND COMFORT

- Completely flush appearance in closed position with clean lines
- Uniform appearance in open position
- Great freedom of design thanks to AMBIAL's wide range of configuration
- Exclusively designed, ultra-flat handle and key
- Easy to operate thanks to the upper and lower rollers, foldable pull handle and optional exterior handle on the service leaf
- Double brush option allows for a flush-fitting threshold
- Possibility to create a 1 or 2-leaf door to maintain visual harmony

PERFORMANCES

- Supported system for more stability
- Excellent thermal and sound insulation
- Extreme high endurance performance of 50,000 cycles ensuring a long lifetime
- The leaves are as easy to open as a sliding door
- Maximum resistance to rust on all hardware
- Rebated frame for improved weather resistance
- 2 vent heights available:
 - 63mm in standard version
 - 73mm in reinforced version

SOFTWARE

- Applications available on TechDesign, TechAcoustic and Tech3D

SUSTAINABILITY

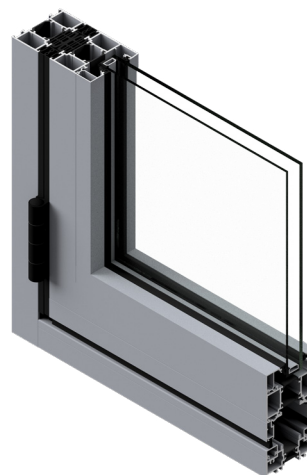
- Profilés made with Hydro CIRCAL®: the prime-quality aluminium made with a minimum of 75% recycled, end-of-life aluminium (post-consumer scrap) with just 1.9 kg de CO₂ per kilo of aluminium
- Environmental Product Declaration (EPD) available on demand

AMBIAL

/ THE FINE DETAILS

HIGH-END FINISHES

- Straight, black, vertical line, in line with the edge of the leaves when viewed in the open position
- In the closed position, black hinges are concealed in the vertical line of the seal
- Black hardware, seals and brush seals
- Screw heads covered with black caps, enhancing weather performance
- Concealed drainage
- Two options for concealing vertical grooves:
 - Black synthetic profile
 - Black seal which improves thermal and acoustic performance



HIGHLY RESISTANT HARDWARE

- Rollers covered with black caps which help with cleaning the tracks
- Stainless steel tracks and wheels
- Simple adjustment on site:
 - Vertical + 3mm / - 1mm
 - Lateral + 5mm / - 5mm
- Anti-derailment load-bearing wheel
- High security thanks to a 3-point locking system with an insulated key lock



EXCLUSIVE HANDLE DESIGN

- Square, ultra-flat handle and key design
- Handles and key covers can be lacquered to match profile colour
- Pull handle mounted on hinges or on support for easy closure





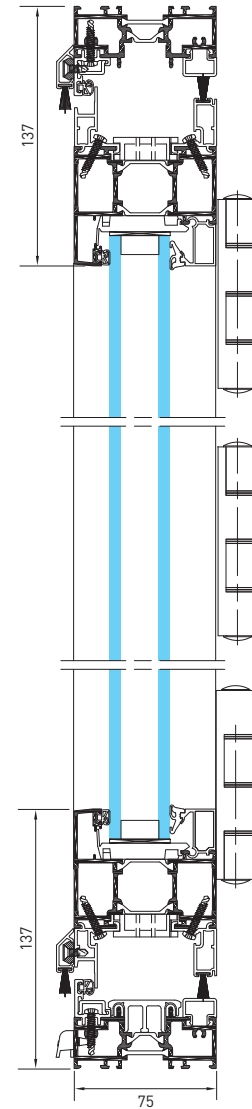
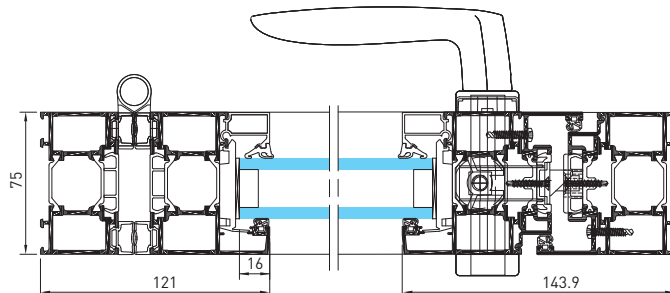
CROSS SECTIONS

/ STRAIGHT LINE

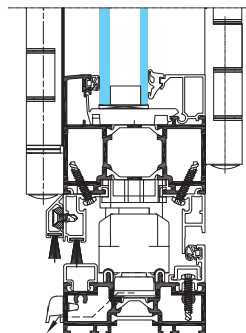
PERFORMANCES

- Optimised heat loss values
 $U_w = 0,95 \text{ W/m}^2\cdot\text{K}$ with $U_g = 0,5 \text{ W/m}^2\cdot\text{K}$
 $S_w = 0,37$ and $TL_w = 0,53^*$
*These values are obtained with double glazing of $1.0 \text{ W/m}^2\cdot\text{K}$ and insulating crossbar with 5 leaves measuring $6000\text{mm} \times 3000\text{mm}$ (WxH)
- Weather Resistance Performance:
 - Air: Class 4
 - Water: Class 8A
 - Wind: Class C3
- Acoustic attenuation: up to 42 dB (R_w)
- Operating Force: Class 1 (less than 100 N)
- Mechanical Strength: Class 3
- Corrosion Resistant Hardware: Grade 5 (420 h in saline mist)
- Hardware Endurance Test: Grade 5
- 25 000 cycles (test conducted in accordance with En13126-15)
- Optional cylinder lock tested to 400,000 opening and closing cycles

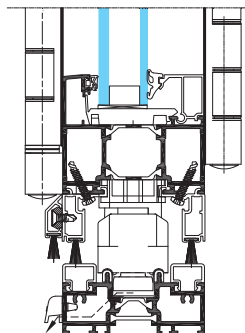
1 LEAF - INWARD OPENING



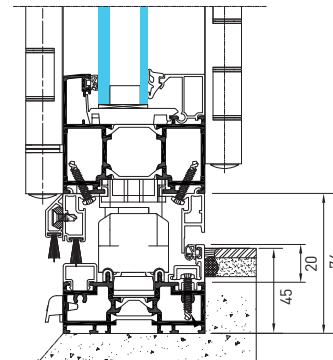
THRESHOLD



Outward Opening with rebate

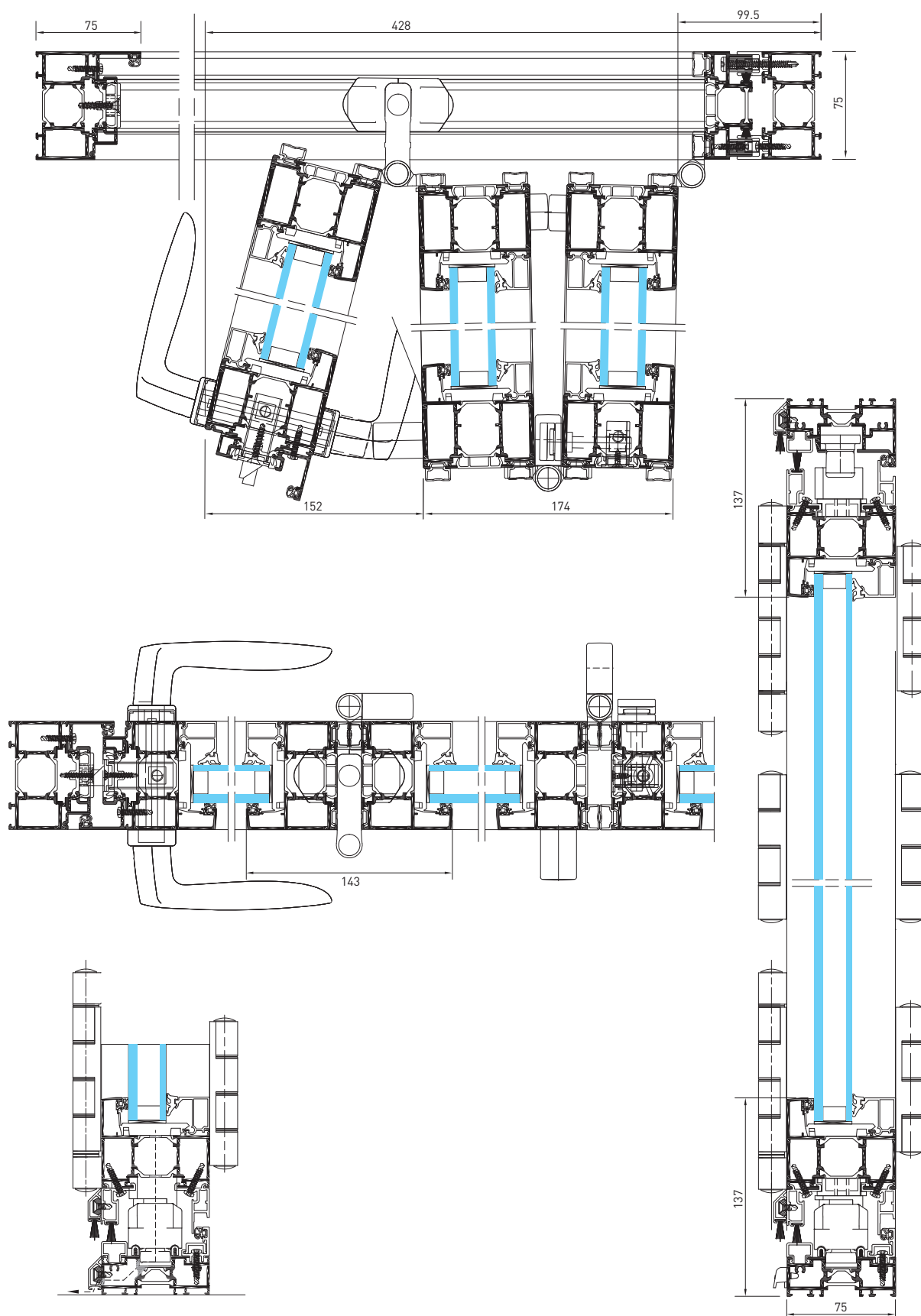


Outward or inward opening with double brush



Outward Opening with recessed disabled access threshold

3 LEAF - OUTWARD OPENING

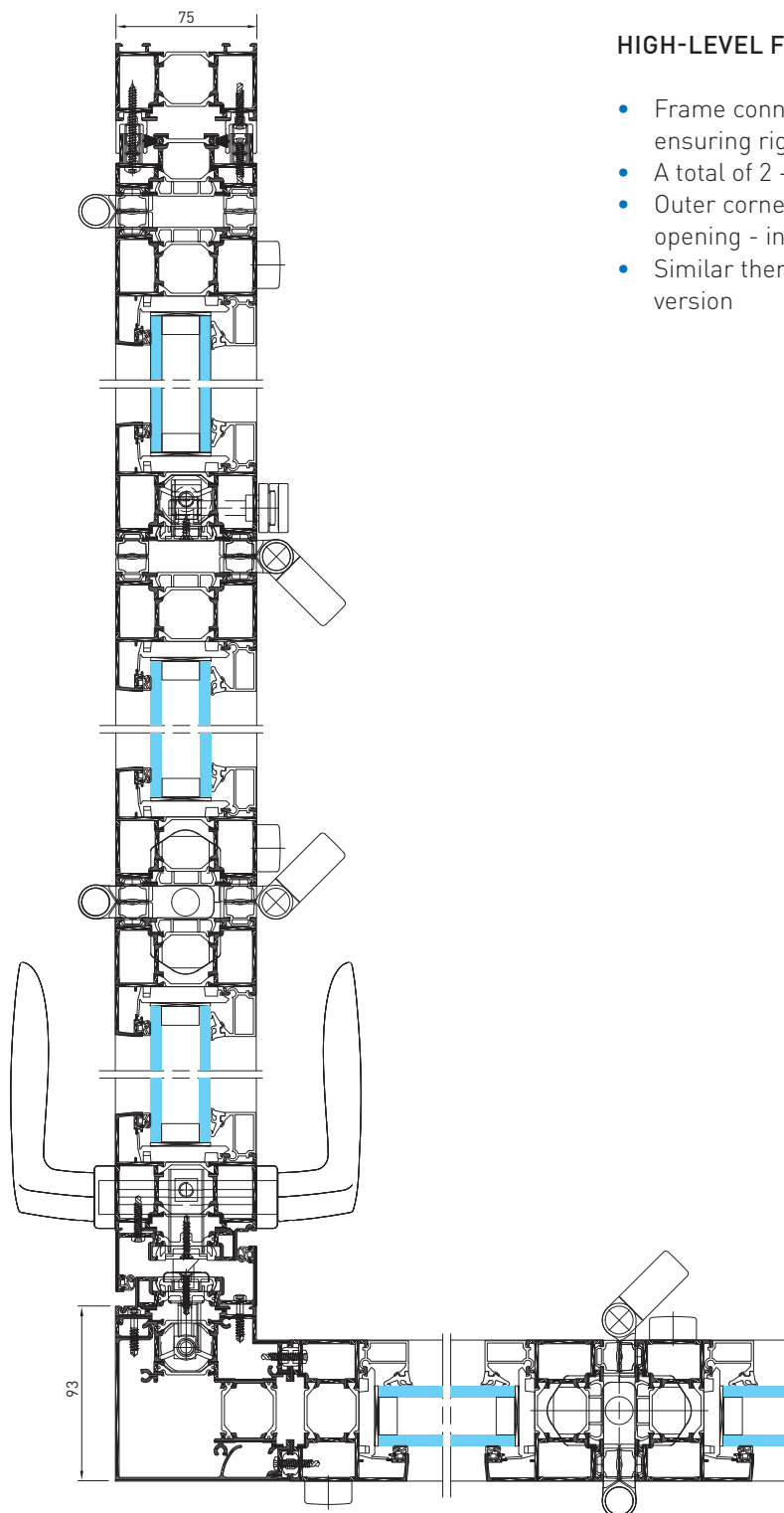


Concealed drainage in option for all configurations

Threshold option with rebate

CROSS SECTIONS

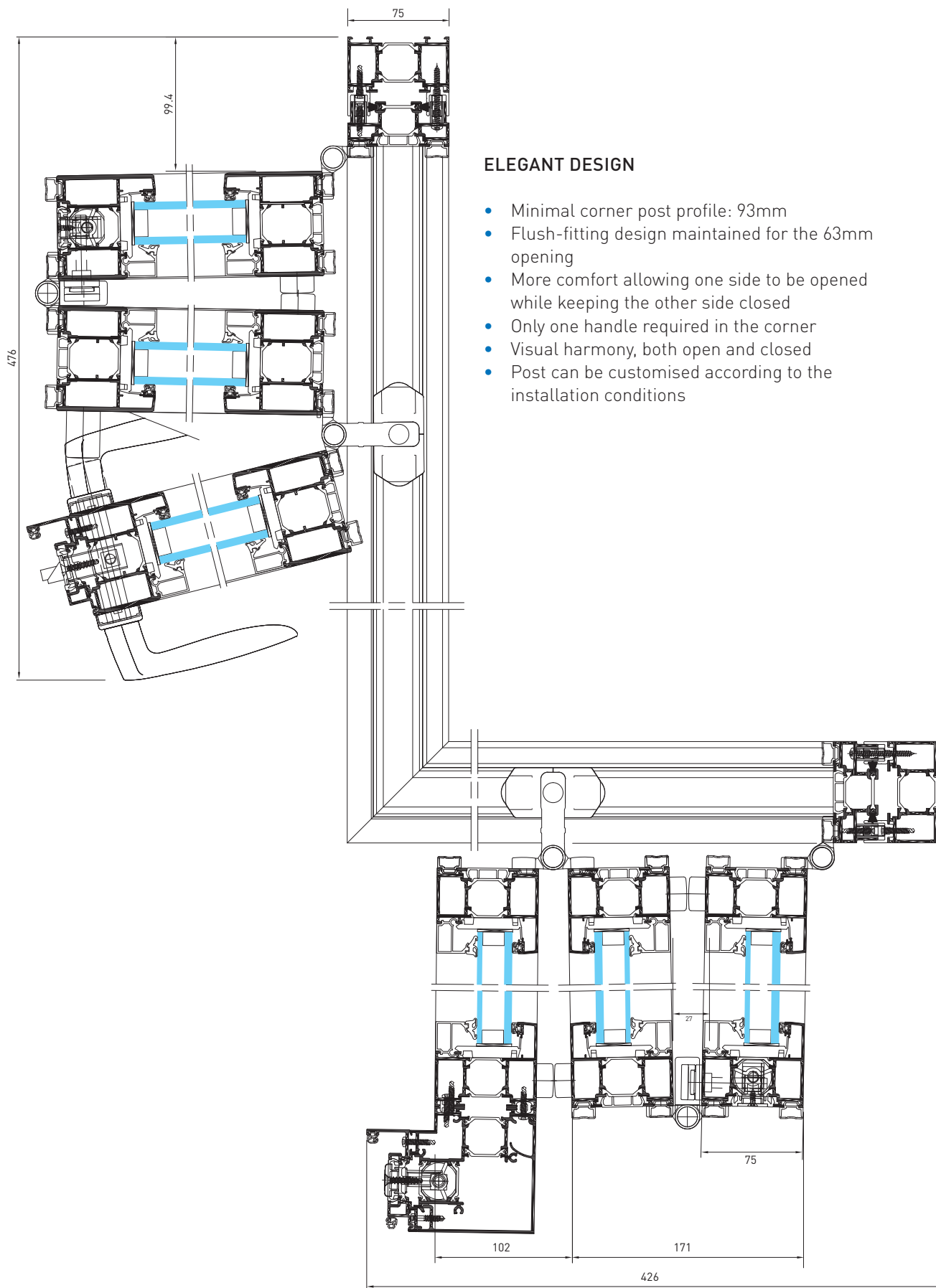
/ OPEN CORNER



HIGH-LEVEL FINISH

- Frame connected to the opening profile, ensuring rigidity and high performance
- A total of 2 - 10 opening leaves
- Outer corner solution with inward or outward opening - inner corner available on request
- Similar thermal performances to the inline version

3 X 3 LEAF - OPEN OUT OUTER ANGLE

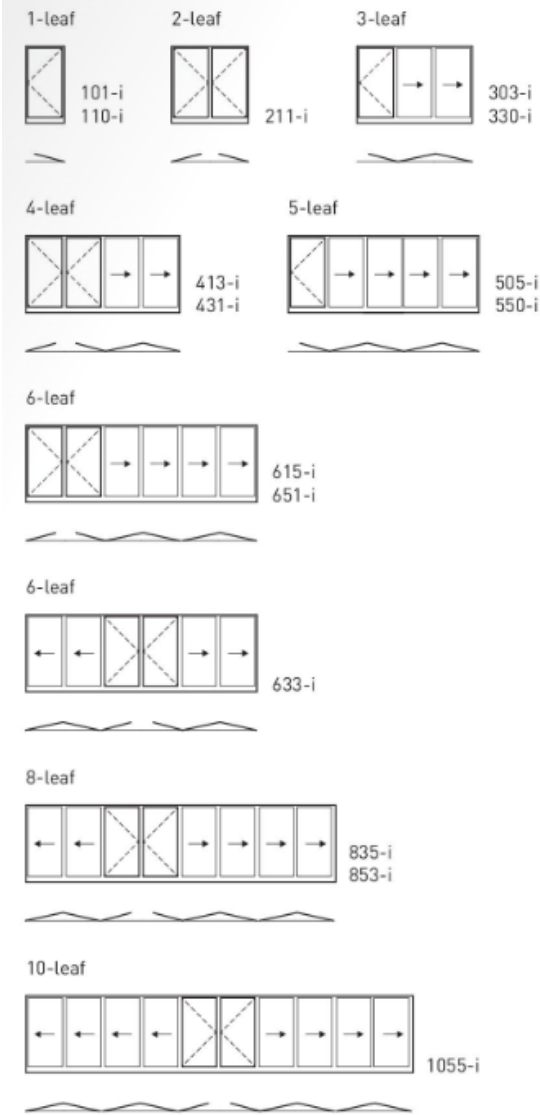


ELEGANT DESIGN

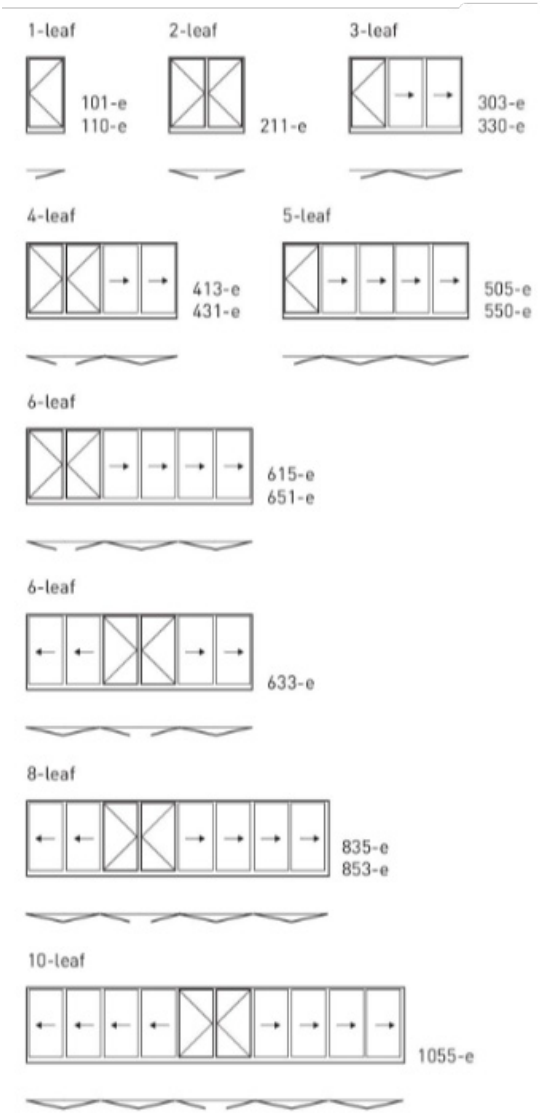
- Minimal corner post profile: 93mm
- Flush-fitting design maintained for the 63mm opening
- More comfort allowing one side to be opened while keeping the other side closed
- Only one handle required in the corner
- Visual harmony, both open and closed
- Post can be customised according to the installation conditions

APPLICATIONS

INWARD OPENING



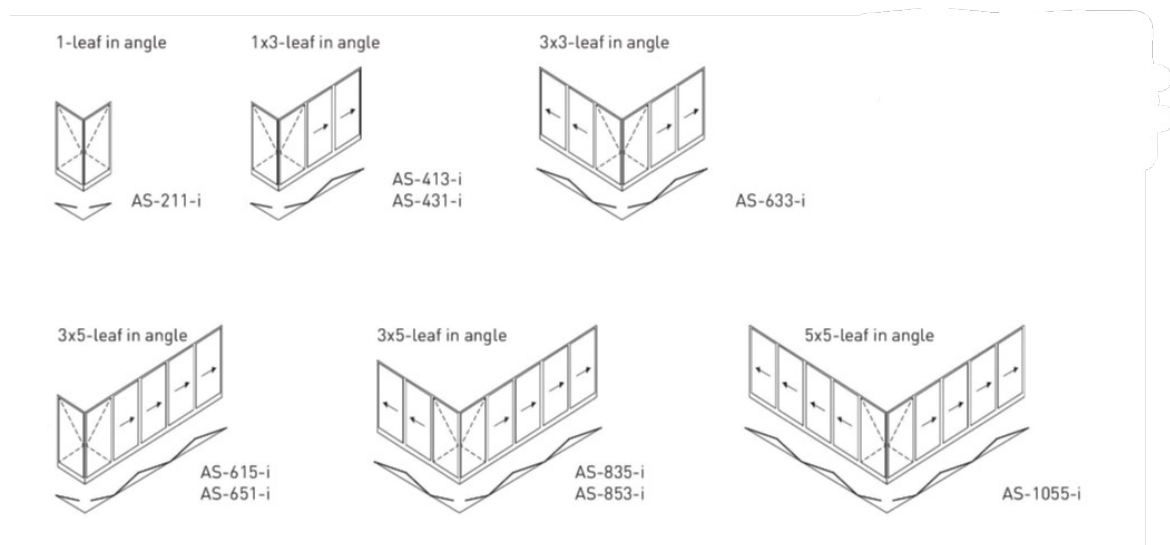
OUTWARD OPENING



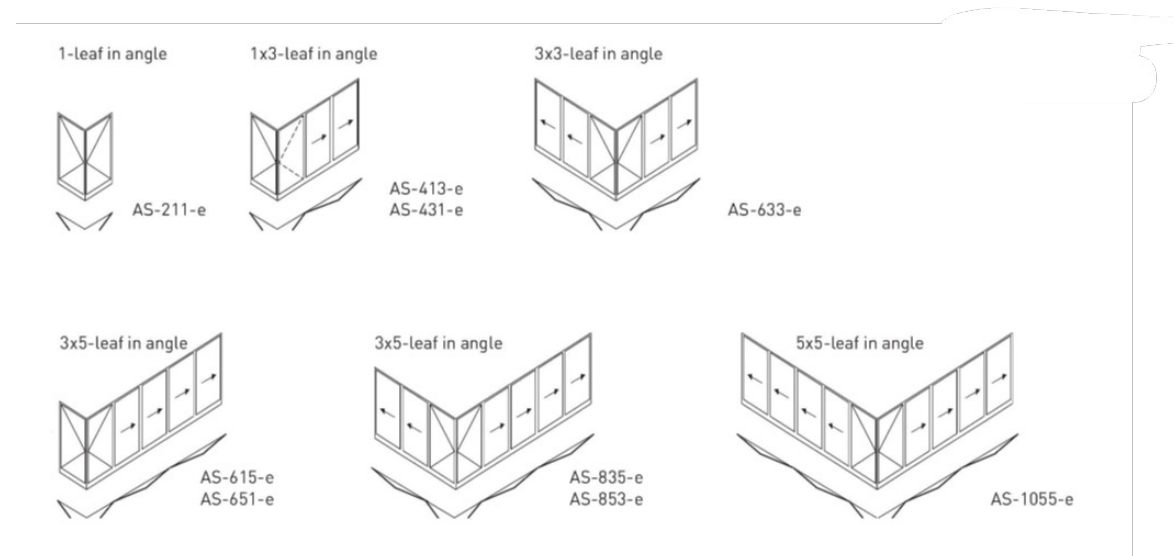
Letters	1st Number	2nd Number	3rd Number	Opening
AS = outer angle	Total number of leaves	Number of leaves on the left	Number of leaves on the right	i = inward e = outward



INWARD OPENING



OUTWARD OPENING



PERFORMANCES

PERFORMANCES (AIR, WATER, WIND)			
Application	Air Permeability	Water Tightness	Resistance to Wind Pressure
3 leaf (2250 x 2400 mm)	Class 4	Class 8A	Class C3

ACOUSTIC PERFORMANCE						
Application	Glazing	Thickness	Performances - Glazing		Performances - AMBIAL	
			R_w	$R_{A, tr}$	R_w	$R_{A, tr}$
3 leaves 3650 x 2180 mm	4/16/4	24 mm	30 dB	26 dB	32 dB	28 dB
	44.2Si-16-10	35 mm	45 dB	39 dB	42 dB	37 dB

THERMAL PERFORMANCE - U_w				
Configuration	Size W x H	U_w with U_g 0,6 triple glazing	U_w with U_g 0,5 warm edge triple glazing	U_w with U_g 1,0 double glazing
3 leaves	3450 x 2180 mm	1.4 W/m².K	1.2 W/m².K	1.6 W/m².K
5 leaves	6000 x 3000 mm	1.3 W/m².K	0.95 W/m².K	1.6 W/m².K
6 leaves	6900 x 2180 mm	1.3 W/m².K	1.1 W/m².K	1.6 W/m².K
10 leaves	11500 x 2180 mm	1.3 W/m².K	1.1 W/m².K	1.6 W/m².K



PERFORMANCES

MATERIALS AND PARTS

As with all TECHNAL systems, only the best materials and components are used to minimise maintenance and ensure optimal long-term performance.

- Fittings are cast from EN 12844 compliant Zamak 5
- All seals are EPDM or TPE (Thermoplastic elastomer)
- The polyamide thermal breaks are extruded from pA6-6 (0.25 FV)
- Screws are made from stainless steel

FINISHES AND COLOURS

A wide range of finishes and colours is available to meet individual project requirements, enhancing existing buildings and offering architects and designers greater design freedom.

- Natural anodised in accordance with EN 123731:2001
- Polyester coating finishes in a wide range of colours in accordance with "QUALICOAT"

instructions

PROFILES

- AMBIAL is made from Hydro CIRCAL®, recycled, end-of-life aluminium. That means it's prime quality aluminium made with at least 75% recycled, post-consumer aluminium. Hydro CIRCAL® has one of the lowest CO₂e footprints available on the market: just 1.9kg of CO₂ per kilo of aluminium.
- The aluminium profiles are extruded from alloys 6060 Building compliant with EN 12020, EN 573-3 and EN 775-1 to 9



Photographe: David Aubert

AMBIAL

/ COMMITMENT TO SUSTAINABILITY

TECHNAL demonstrates its strong commitment to the environment in all areas: by using recycled and low-carbon materials, with a product design that is adapted to a circular economy, and produced within a responsible supply chain. In addition, these statements are certified by external organisations to ensure maximum transparency.

HYDRO CIRCAL®

We are demonstrating our focus on sustainability by using Hydro CIRCAL® for our system solutions, one of the most sustainable aluminium alloys in our sector. Hydro CIRCAL® is a range of prime quality aluminium made with a minimum of 75% recycled end-of-life aluminium (post-consumer scrap). The production process is verified by an independent third party (DNV-GL), and confirmed by an EPD (Environmental Product Declaration). Hydro CIRCAL® also has **one of the smallest CO₂ footprint worldwide: 1.9 kg CO₂ per kilo of aluminium** – 4.5 times less than the world global primary average.



75% RECYCLED POST CONSUMER

Hydro CIRCAL® is the world's first certified recycled aluminium which means that at least 75% of the prime-quality aluminium alloy comes from post-consumer materials.



95% ENERGY SAVED

By recycling post-consumer scrap aluminium, the remelting process saves up to 95% of energy that would normally be spent and maintain the same high quality as primary aluminium.



85% REDUCTION OF CO₂ EMISSIONS

The consequence of using Hydro CIRCAL® is the drastic reduction in CO₂ emissions which sums more than 85% when compared with the global average for primary aluminium production.



IMAGINE WHAT'S NEXT

Head Office
Severn Drive, Tewkesbury
Gloucestershire
GL20 8SF

Tel +44 1684 853500

Northern Office
Cedar Court Office Park,
Denby Dale Road, Wakefield
WF4 3FU

info.uk@hydro.com

London Office
The Building Centre
26 Store Street, London
WC1E 7BT

www.technal.co.uk

