

VADEMECUM

OF ARCHITECTURAL
ALUMINIUM SYSTEMS



yawal.com












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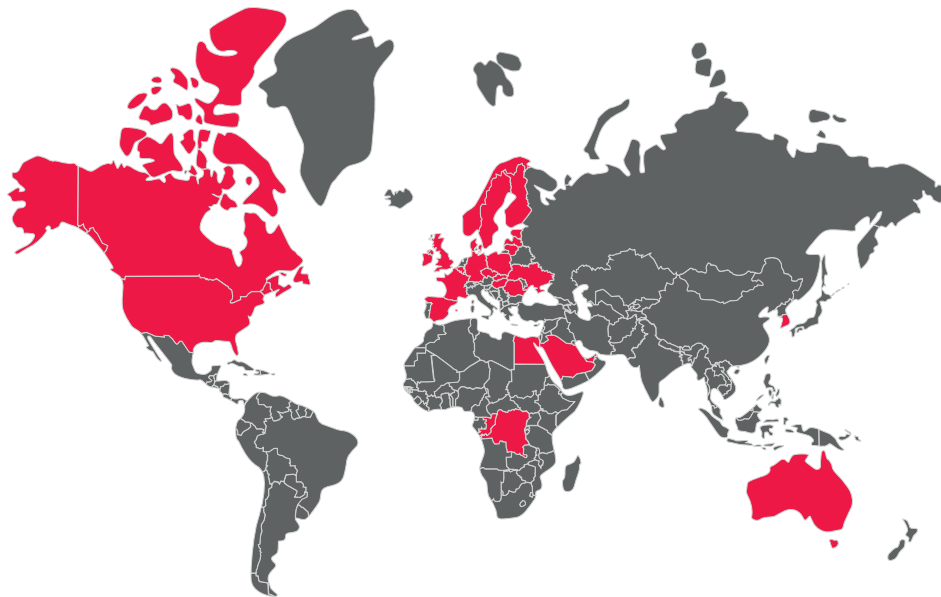
3 DECADES OF DEVELOPMENT

Yawal SA is one of the leading suppliers of architectonic systems of aluminium profiles for building and residential buildings construction in Poland. The company owes its position to the founding vision of Edmund Mzyk, the experience of over 30 years of working in the construction and architecture sector in Europe and a wide range of innovative solutions. The company's mission has always been to design and offer comprehensive system solutions at a global level that ensure comfort of life and safety of use. Currently, the company is managed in the second generation of owners by Edmund Mzyk's daughter – Karolina Mzyk-Callias.

One of the competitive advantages of the company is the concentration of the entire production process in one Capital Group, a part of which are such companies as: Yawal SA, Yawal USA, Final SA, Akrivea SA and Ypsos Sp. z o. o. All companies have Polish capital, and their activities focus on the processing of aluminium and its products of the best world quality for many industries, including modern construction.

We have been cooperating very closely with architects, general contractors, manufacturers of window joinery and investors invariably for thirty years. It is the exchange of experiences that allows the company to adapt to the rapidly changing market conditions in the world.

► Business scope



Our guiding principle is customer centricity. The client is placed in the centre of our activities, and decisions we make are based on their needs.



Currently, Yawal Group employs nearly 800 qualified employees. Our products are available in about 20 countries around the world. According to the adopted strategy for the future, our activities are focused around the client, employee, environmental protection and development through innovation.

SOLUTIONS TAILORED TO EXPECTATIONS

The variety of forms and originality are the features of the architecture of the second and third decade of the 21st century. This effect is achieved, among others, thanks to the use of various materials, the play of light and the creativity of architectural designs. However, we would not have achieved such spectacular results without appropriate technology. During over thirty years of business activity, Yawal SA, cooperating with architects and contractors, has developed customized, unique construction solutions,

which make buildings based on the company's systems effective and extremely eye-catching. As a flexible and agile company, we are open to the implementation of customized projects. This type of cooperation between the system supplier and the manufacturer is the most valuable, as only in such cases the solutions are tailored to the needs of customers and product users. Customer is the most important for us, and aluminium is our passion.



PRODUCTION AND LOGISTICS

To ensure top quality of our products, we continuously modernise and enlarge the machine park. At present Yawal has four presses for pressing aluminium profiles and one of the most state-of-the-art powder varnishing shops in the country, with vertical system of profiles suspension and transport. We attach great importance to on-time deliveries and top quality of customer service. To improve our logistics and make it more efficient, we have built a modern high-stock warehouse. We also maintain inventory of standard profiles, which additionally shortens the lead time. Our Customer Service is available to all our customers and partners to support them with professional experience and assistance.

PRODUCTS

Yawal systems have many applications. They may be used to build façades, sliding structures, doors, windows, roofs and skylights.

A team of top designers of our company continuously work on innovative solutions, with improved parameters, thus allowing architects and investors to create more complex and impressive projects. Our systems of aluminium profiles represent modern technologies, that increase energy efficiency, decrease maintenance costs and, last but not least, decrease the assembly time. Full product range of profiles, fittings and accessories, including available colours, is presented in the official Yawal price list.

We make sure at the Yawal company that our products meet even the most sophisticated customer requirements. We see a great potential in modern residential projects, where there is greater importance placed on the amount of light in the rooms. We wish our products to create a friendly, comfortable, and at the same functional environment that creates an optimistic and thus healthier living space.



QUALITY AND ECOLOGY

Our commitment to environment does not end at production. We want to actively contribute to creating a sustainable future through our cooperation with various organizations and initiatives around the world.

The objective of our company is to continuously improve the quality of our products, however without a negative effect on the environment. We create quality to satisfy our customers and ourselves. In line with our principle, Yawal products are manufactured in environment friendly conditions. We achieve this goal by using appropriate materials and controlling consecutive stages of production and distribution. The prove our care for the environment is our new investment. We have installed a safe spraying installation for chemical processing of aluminium using chrome-free preparations. Please note that aluminium is 100% recyclable material.

The company is a partner of UN Global Compact. For a long time, Yawal Group has been heading towards environmental neutrality, which is why the company joined the Climate Positive programme which is part of the Global Compact. The Climate Positive programme supports the implementation of the UN Sustainable Development Goals, such as; clean and accessible energy, innovative industry and infrastructure or activities related to climate. Current vision of Yawal covers the next 30 years of sustainable development of the company. It is an expression of respect for 33 years of heritage.



SUSTAINABLE DEVELOPMENT
IN YAWAL GROUP

CERTIFICATES

At Yawal, each stage of aluminium processing is monitored and recorded, ensuring optimal protection against corrosion and adhesion of paint coatings.

Our basic instruments to achieve the objectives of high quality and ecological approach are the implemented management systems. The first one is the Quality Management System complying with ISO 9001:2015 standards, confirmed with a certificate issued by BSI for: designing, production and distribution of aluminium profiles and architectural aluminium systems for building industry, and corresponding technical assistance. The full scope is presented below: Designing, production and distribution of aluminium profiles and architectural aluminium systems for building industry, and corresponding technical assistance. Powder coating. Completion of photovoltaic systems based on the production of Yawal aluminium profiles and third-party suppliers of other components of the BIPV (Building Integrated Photovoltaics) installation.

The second instrument to support the management process is the Environmental Management System ISO 14001:2004, confirmed with a certificate issued by a certification entity BSI. Yawal meets all legal requirements specified by those certificates, maintains a policy of rational utilisation of utilities, materials and raw materials, and uses effective devices to minimise negative impact on the environment. As far as the powder varnishing of aluminium is concerned, Yawal obtained a Qualicoat licence, including Seaside, of the Association for Quality Control in the Lacquering, Painting and Coating Industry.

BUSINESS PARTNERS

Cooperation with architects and designers enhances creating unique construction solutions. Our technical department assists our customers in finding the best solutions in application of aluminium systems. With our Coordinators' help we transform the architects' ideas into interesting designs that fit into an intended budget. Top quality of products and customer service is our most important priority. Our products are constantly improved, based on our partners' knowledge that we gather and integrate into our systems. The objective here is not only to sell the product, but also to offer great technical support that would allow to quickly find solutions to new challenges. We want to create safe and beautiful world with our partners.

Customer assistance includes:

- designing and technical advice, technical assistance by our specialists both in the field and at Yawal premises,
- trainings on technical solutions, calculations and material bills for customers (carried out at our premises or individually, at our customers' premises in Poland),
- technical assistance for the offer software YAWAL CONSTRUCTOR, YAWAL PRO,
- static and strength calculations and valuations for projects,
- designing complicated aluminium structures and technical supervision.

YAWAL TRAININGS

We organize cycles of off-site and on-line technical and product training, including in the field of software. Trainings are intended for all companies dealing with designing and assembly of aluminium systems, companies interested in production quality improvement and designers working with Yawal systems. The goal is to improve the quality of customer service and production efficiency. We act out of concern for the satisfaction of our clients and partners, and our main goal is to jointly create a safe and comfortable environment for residents. We have a mission, values and purpose that are an integral part of our company.

CUSTOMER PANEL AND KNOWLEDGE

The Internet Customer Panel is direct access to knowledge and a connection to our ordering system. The Panel is available in the menu in the Manufacturer tab, the data is fully protected and available after prior registration and user authorization. In addition, you may find the Knowledge Panel on our website. It is the place where we have gathered the most important information about our products. You may find there system catalogues, price lists, software, certificates, CAD/Revit library, manuals, and marketing and information materials.



Check our Customer Panel.
Register now!



TOOLING

Yawal SA aims at providing the customers a state-of-the-art manufacturing base that ensures high quality and efficiency at the same time. The machine park and tooling we offer can significantly speed up the production of windows, door and façades.

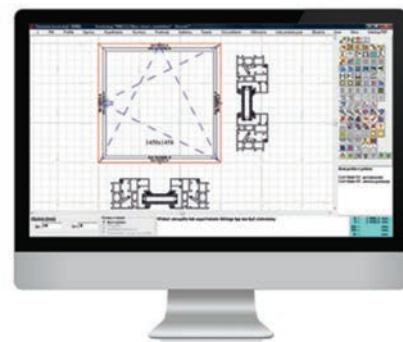
The advantages of our multi-press machines:

- operational safety,
- high operation rate,
- user-friendly operation,
- high quality of holes and undercuts.



SOFTWARE

In order to make creating aluminium constructions easier for our customers, Yawal offers dedicated computer software to support the entire production process of aluminium constructions manufacturers. YAWAL CONSTRUCTOR is a specialist software to prepare offers quickly, generate material bills, creating production lists and cutting lists. It also allows for exporting the skeletons of created structures to CAD type software and to export data to Excel. The company also cooperates with UNI-LINK and Orgadata in the integration of software with CNC machines.



Yawal Constructor
a window to design structures



YAWAL SYSTEMS

TM
102
HI

WINDOW AND DOOR SYSTEM
WITH THERMAL INSULATION

perfect thermal insulation properties

TM 102HI - SYSTEM FEATURES

- excellent level of energy efficiency $U_f =$ from $0,45 \text{ W/m}^2\text{K}$ and very high water tightness thanks to the use of an innovative design of the central gasket,
- excellent level of sound insulation confirmed by tests,
- modern design of latch profiles in combination with new gaskets - the possibility of obtaining one plane on the aluminium-gasket line,
- possibility of manufacturing glazing reversible profile,
- possibility of creating structures with large surfaces,
- possibility of making balcony door with low threshold and all-glass corner,
- additional windproof insulation thanks to the use of a gasket at the joint of the glazing bead of the profile,
- enables the production of modern doors, ensuring excellent thermal insulation
- possibility of using full range of fittings available on the market: surface fittings, hidden fittings, PVC groove fittings, spindle handles of any shape, stainless steel handles.



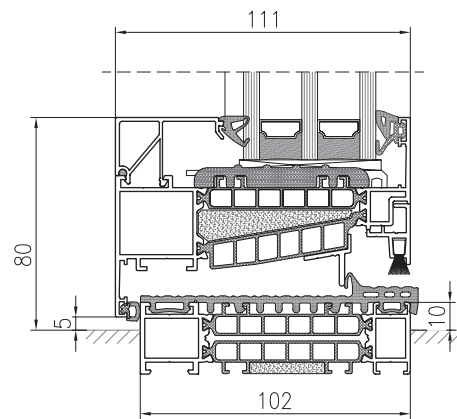
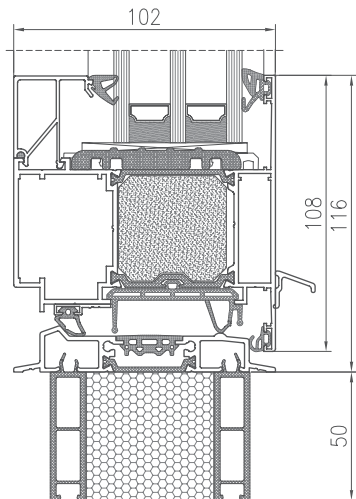
See the product
on the website



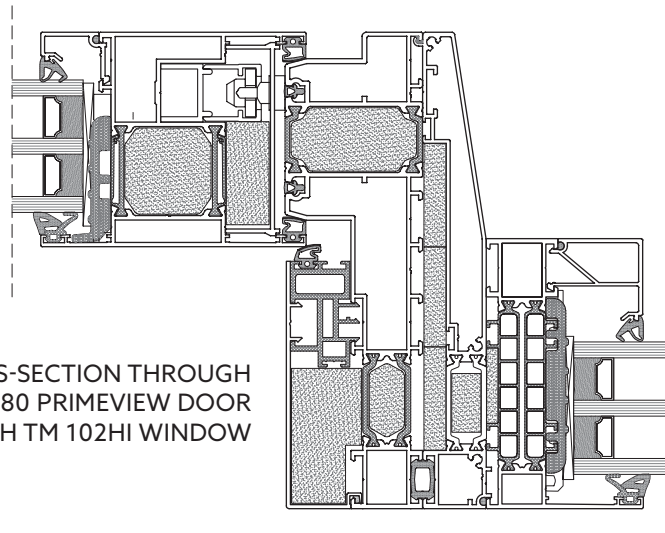
Picture: Office Building at Za bramką Street, Poznań
Design: Ultra Architects
Aluminium manufacturer: JB System Jacek Broniarz

CROSS-SECTION THROUGH TM 102HI WINDOW WITH LOW THRESHOLD

CROSS SECTION THROUGH TM 102HI DOOR WITH WARM FOUNDATION BEAM



CROSS-SECTION THROUGH DP 180 PRIMEVIEW DOOR WITH TM 102HI WINDOW



TM 102HI - WINDOW AND DOOR SYSTEM WITH THERMAL INSULATION

TECHNICAL PARAMETERS - TM 102HI

		WINDOWS	DOORS
ENERGY	Thermal insulation EN 10077-2	Uw from 0,58 W/m ² K	Uw from 0,7 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 39 ÷ 48 dB	Rw = 39 ÷ 48 dB
	Air permeability EN 12207	Class 4	Class 4
	Water tightness EN 12208	E1800	E750
SAFETY	Wind load resistance EN 12210	Class C5/B5	Class C5/B5
	Anti-theft protection EN 1627	RC2	RC2

TECHNICAL PROPERTIES - TM 102HI

	WINDOWS	DOORS
Frame structural depth	102 mm	102 mm
Sash/leaf structural depth	111,4 mm	102 mm
Infill thickness	35 ÷ 72 mm	35 ÷ 72 mm
Maximum sash/leaf dimensions L x H	1600 x 3000 mm	1400 x 3000 mm/
Maximum sash/leaf weight	180 kg	250 kg
Structure type	fixed, turn, tilt, turn and tilt window	single-leaf, double-leaf doors, doors with transom window and sidelights

TM
102
HI

PANEL DOOR SYSTEM

Prestige

ešte lepšie tepelné pfrommienky

TM 102HI PRESTIGE – SYSTEM FEATURES

- ensures insulation at the level of U_f from $0,5 \text{ W/m}^2\text{K}$, which makes it perfect for passive houses,
- allows full freedom in constructing exclusive entrance doors, regardless of configuration,
- versions with a single-sided and double-sided panel are available,
- modern multi-component central gasket between the frame and the leaf,
- allows the use of a linear drainage solution,
- the system is quick and easy to assemble,
- possibility of using panels with all possible designs, with decorative designs of stainless steel and with decorative cuts,
- the system has dedicated hardware solution.

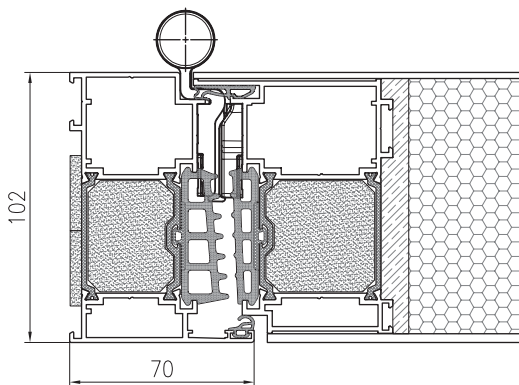


See the product and panel door folder on the website

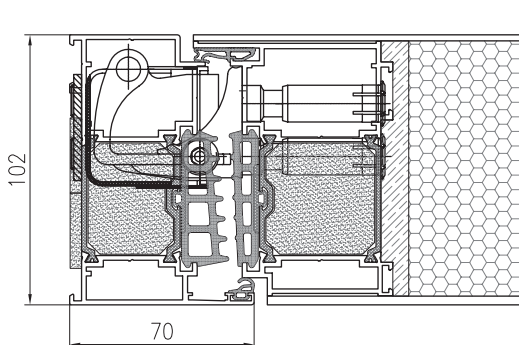
Picture: Private house
Design: MRZEWA Architects, Łódź,
Aluminium manufacturer: Zimny Sp. z o.o., Łódź



CROSS SECTION THROUGH TM 102HI
PRESTIGE DOOR – ROLLER HINGES



CROSS SECTION THROUGH TM 102HI
PRESTIGE DOOR – HIDDEN HINGES



TECHNICAL PARAMETERS - TM 102HI PRESTIGE

ENERGY	Thermal insulation EN 10077-2	Uw from 0,8 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 34 dB
	Air permeability EN 12207	Class 4
	Water tightness EN 12208	7A
SAFETY	Wind load resistance EN 12210	Class C5/B5
	Anti-theft protection EN 1627	RC2

TECHNICAL PROPERTIES - TM 102HI PRESTIGE

Frame structural depth	102 mm
Leaf structural depth	102 mm
Infill thickness	50 ÷ 102 mm
Maximum dimensions L x H	1300 x 3000 mm/2600 x 3000 mm
Maximum leaf weight	250 kg
Structure type	single-leaf doors, double-leaf door, door with transom windows and sidelights

TM
77HI

WINDOW AND DOOR SYSTEM
WITH THERMAL INSULATION

high thermal insulation properties

TM 77HI - SYSTEM FEATURES

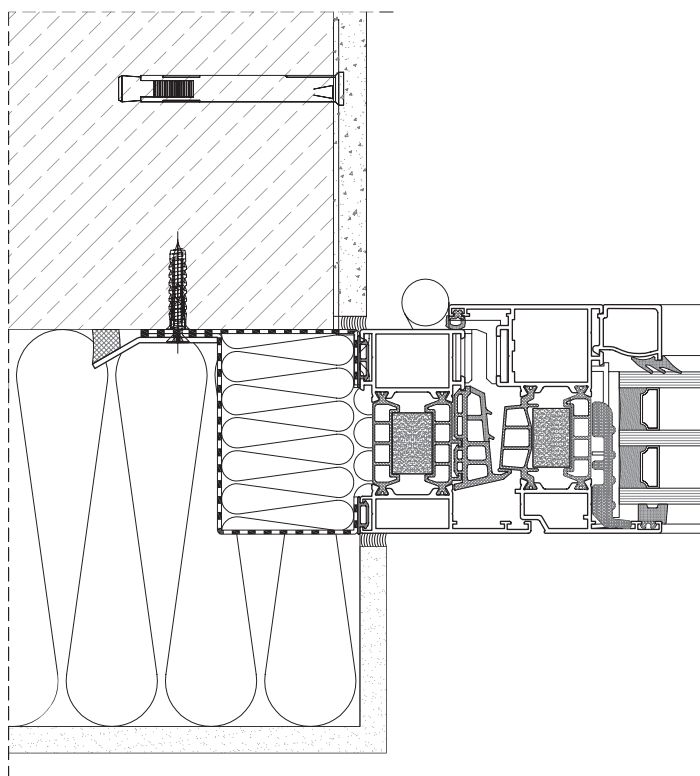
- possibility of heating costs reduction,
- possibility of creating large-surface structures with mfromern arrangement of façades and interiors,
- easy to match with fittings elements and control elements,
- possibility of creating mfromern structures of various shapes and configurations,
- excellent value of the heat transfer coefficient at the U_f level from $0,8 \text{ W/m}^2\text{K}$,
- possibility of making balcony door with low threshold,
- divided thermal separators prevent sashes/leaves from bending under the influence of high temperature,
- possibility of making an all-glass corner.



See the product
on the website

Picture: 32 Dobra Apartments, Warsaw,
Design: APA Wojciechowski Sp. z o.o., Warsaw,
Aluminium manufacturer: Wiga System s.c., Olsztyn

CROSS SECTION THROUGH
TM 77HI WINDOW



TM 77HI - WINDOW AND DOOR SYSTEM
WITH THERMAL INSULATION

TECHNICAL PARAMETERS - TM 77HI

		WINDOWS	DOORS
ENERGY	Thermal insulation EN 10077-2	Uw from 0,66 W/m ² K	Uw from 0,8 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 39 ÷ 48 dB	Rw = 36 ÷ 45 dB
	Air permeability EN 12207	Class 4	Class 4
	Water tightness EN 12208	E1650	E900
SAFETY	Wind load resistance EN 12210	Class C5/B5	Class C5/B5
	Anti-theft protection EN 1627	RC2, RC3, RC4	RC2, RC3

TECHNICAL PROPERTIES - TM 77HI

	WINDOWS	DOORS
Frame structural depth	77 mm	77 mm
Sash/leaf structural depth	86,4 mm	77 mm
Infill thickness	19 ÷ 67 mm	35 ÷ 67 mm
Maximum sash/leaf dimensions L x H	1600 x 3000 mm	1400 x 3000 mm/ 2400 x 2900 mm
Maximum sash/leaf weight	180 kg	250 kg
Structure type	fixed, turn, tilt, turn and tilt window	single-leaf, double- leaf doors, doors with transom window and sidelights



PANEL DOOR SYSTEM

Prestige

aesthetics and modernity

TM 77HI PRESTIGE – SYSTEM FEATURES

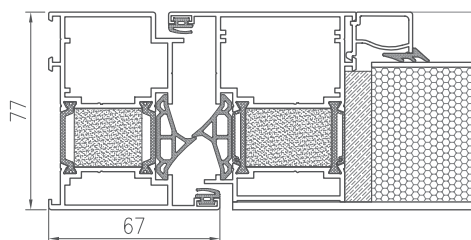
- excellent aesthetics of the system due to hidden hinges, the product is available in various options:
 - with single – faced panel,
 - with double – faced panel,
- possibility of choice between type of insulation or central gasket,
- quick and easy assembly,
- possibility of using panels with all possible designs, with decorative designs of stainless steel and with decorative cuts,
- high thermal insulation properties,
- great selection of colours – RAL palette, structural colours and wooden-like colours,
- possibility of opening the door in various ways: standard key, application, fingerprint,
- possibility of creating high structures using innovative solutions.



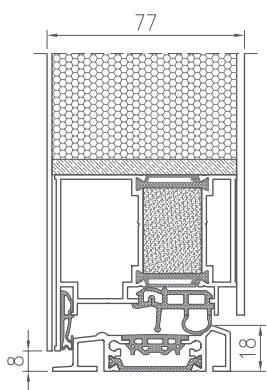
See the product and panel door folder on the website

Picture: Examples of the system use

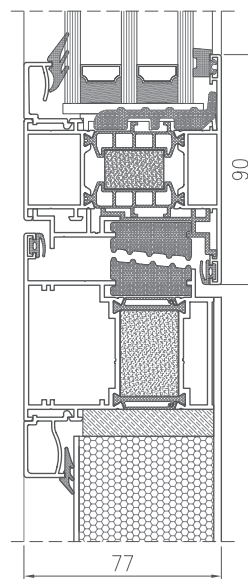
CROSS SECTION THROUGH
TM 77HI PRESTIGE DOOR



CROSS SECTION THROUGH
TM 77HI PRESTIGE DOOR



CROSS SECTION OF TM 77HI PRESTIGE
DOOR WITH TRANSOM WINDOW



TECHNICAL PARAMETERS - TM 77HI PRESTIGE

ENERGY	Thermal insulation EN 10077-2	Uw from 0,9 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 33 dB
	Air permeability EN 12207	Class 4
	Water tightness EN 12208	7A
SAFETY	Wind load resistance EN 12210	Class C5/B5
	Anti-theft protection EN 1627	RC2, RC3

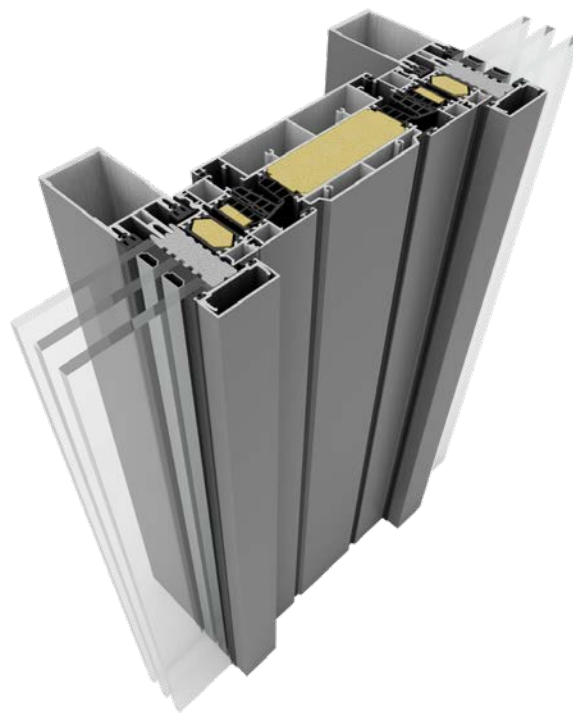
TECHNICAL PROPERTIES - TM 77HI PRESTIGE

Frame structural depth	77 mm
Sash/leaf structural depth	77 mm
Infill thickness	30 ÷ 77 mm
Maximum dimensions L x H	1300 x 3000 mm/ 2400 x 2800 mm
Maximum leaf weight	250 kg
Structure type	single-leaf, double-leaf doors, doors with transom window and sidelights



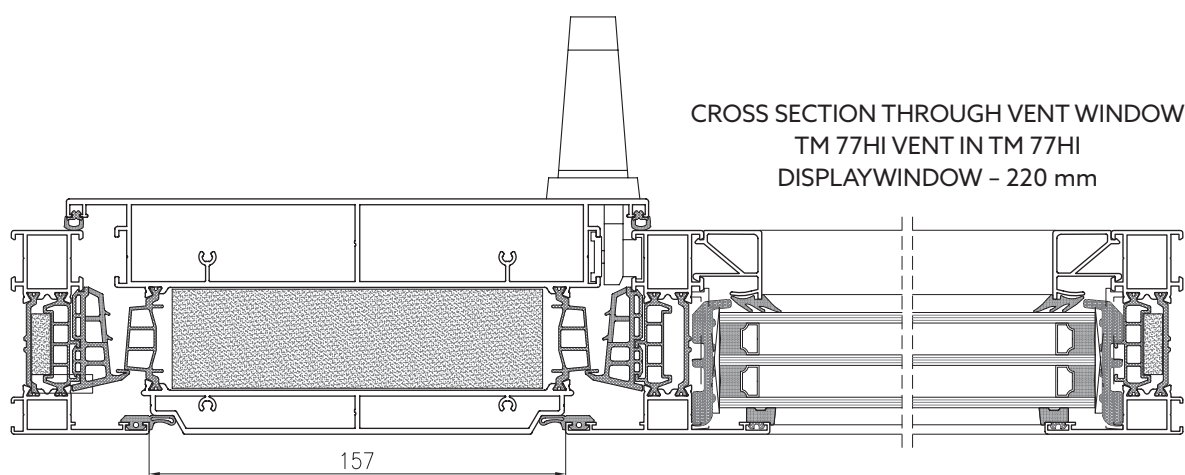
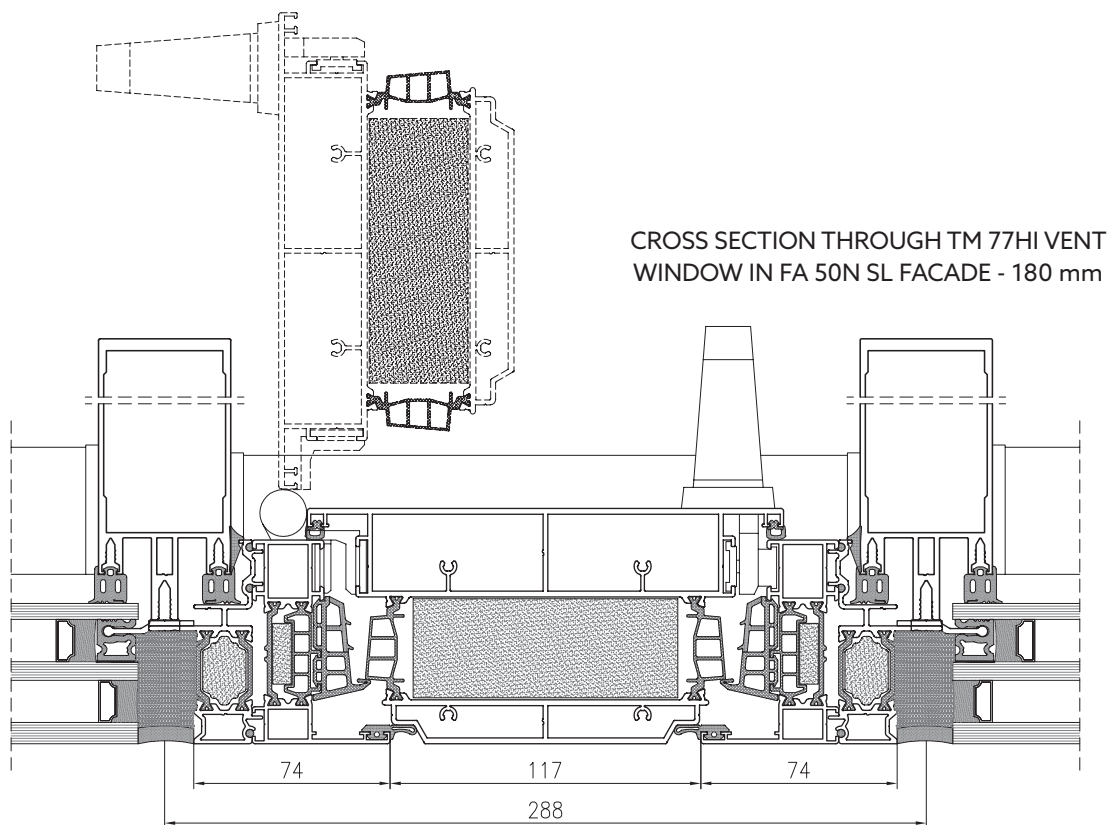
TM 77HI VENT - SYSTEM FEATURES

- possibility of installing into FA 50N and FA 50N SL façades,
- the use of a standard frame and gasket in the system structure,
- sealing made of PIR,
- system allows you to adhere the glass, which increases safety and aesthetics,
- possibility of creating window structures up to 3 m high,
- safe and efficient room ventilation system,
- possibility of combination with other Yawal systems.



See the product
on the website

Picture: Office Building WAVE, Gdańsk
Design: Medusa Group Sp. z o.o. Sp.k., Bytom
Aluminium manufacturer: POKO-AL Sp. z o.o. Sp.k, Gdańsk



TECHNICAL PARAMETERS - TM 77HI VENT

ENERGY	Thermal insulation EN 10077-2	Uw from 0,9 W/m ² K
COMFORT	Air permeability EN 12207	Class 4
	Water tightness EN 12208	E1500
SAFETY	Wind load resistance EN 12210	Class C5/B5

TECHNICAL PROPERTIES - TM 77HI VENT

Frame structural depth	77 mm
Sash/leaf structural depth	88,9 mm
Maximum dimensions L x H	180 x 3000 mm, 220 x 3000 mm
Structure type	turn vent window

modern industrial design

STEELVIEW – SYSTEM FEATURES

- window solutions with movable mullion,
- possibility of using hidden hinges,
- possibility of constructing windows (tilt, turn and tilt-and-turn), as well as balcony doors in variants with a low threshold recessed into the floor and with a low threshold mounted on the floor,
- completely invisible, gravitational drainage system of the structure consisting in draining the condensate downwards and draining it out of the windows with the use of additional drainage profiles,
- possibility of combining with all variants of FA 50N system,
- the height of folding the frame with the sash is only 71 mm.



See the product on
the website

Picture: Examples of the system use

NEW STEELVIEW SYSTEM IS AVAILABLE IN 4 DECORATIVE VARIANTS:

1. STANDARD VARIANT

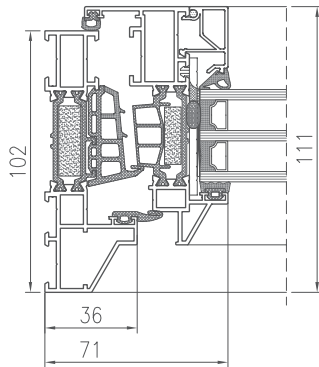
2. INDUSTRIAL VARIANT

3. STEEL VARIANT

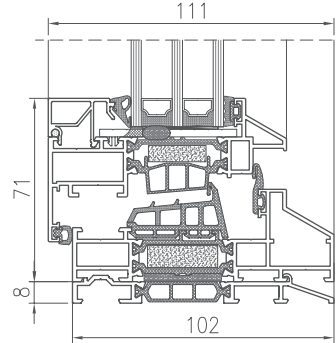
4. HIDDEN LEAF VARIANT



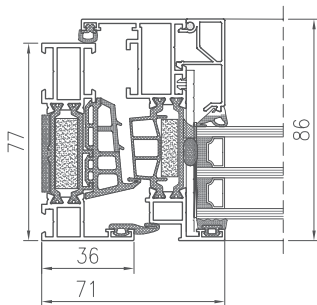
CROSS SECTION THROUGH STEELVIEW WINDOW - STEEL VARIANT



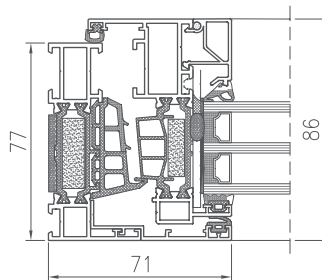
CROSS-SECTION THROUGH THE WINDOW WITH PROFILE DRAINING WATER STEELVIEW



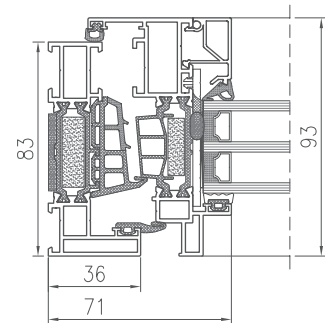
CROSS SECTION THROUGH STEELVIEW WINDOW - STANDARD VARIANT



CROSS SECTION THROUGH STEELVIEW WINDOW - HIDDEN SASH VARIANT



CROSS SECTION THROUGH STEELVIEW WINDOW - INDUSTRIAL VARIANT



TECHNICAL PARAMETERS - STEELVIEW

ENERGY	Thermal insulation EN 10077-2	Uw from 0,8 W/m ² K
COMFORT	Air permeability EN 12207	Class 4
	Water tightness EN 12208	E1800
SAFETY	Wind load resistance EN 12210	Class C5/B5

TECHNICAL PROPERTIES - STEELVIEW

	STANDARD	INDUSTRIAL	STEEL	US
Frame structural depth	77 mm	83 mm	102 mm	77 mm
Sash/leaf structural depth	86 mm	93 mm	93 mm	79 mm
Infill thickness	10 ÷ 60 mm	10 ÷ 60 mm	10 ÷ 60 mm	10 ÷ 60 mm
Maximum sash/leaf dimensions L x H	1600 x 3000 mm	1600 x 3000 mm	1600 x 3000 mm	1600 x 3000 mm
Structure type	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window

TM
74HI

WINDOW AND DOOR SYSTEM
WITH THERMAL INSULATION

increased thermal insulation

TM 74 HI - SYSTEM FEATURES

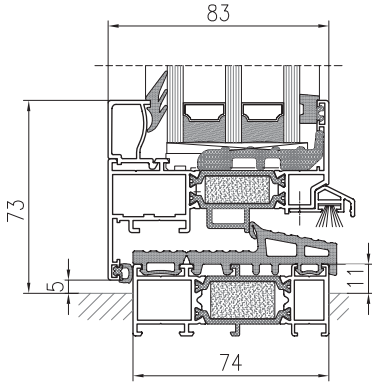
- possibility of bending profiles,
- possibility of installing windows in façade systems,
- possibility of creating sets of structures mounted at any angle,
- possibility of using electric locks,
- possibility of using surface, hidden or roller hinges,
- possibility of using full range of modern fittings and individual handles or pull handles thanks to profiles of various width.



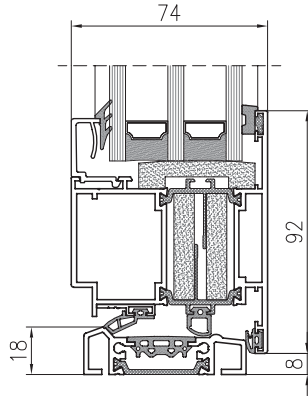
See the product
on the website

Picture: Bałtyk Tower, Poznań
Design: MVRDV, Rotterdam / NO Natkaniec Olechnicki Architects, Warsaw / BT TUSCHER, Gdynia
Aluminium manufacturer: Alglob Sp. z o.o., Dąbrowa near Poznań

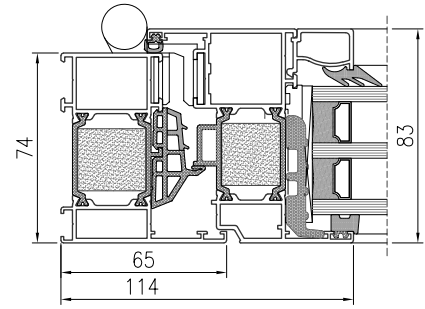
CROSS SECTION THROUGH
TM 74HI WINDOW
WITH LOW THRESHOLD



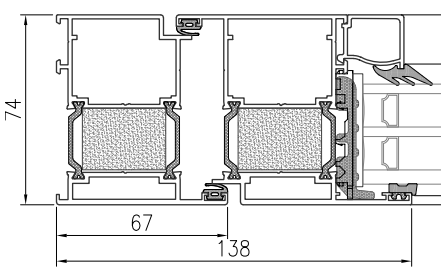
CROSS SECTION THROUGH
TM 74HI DOOR THRESHOLD



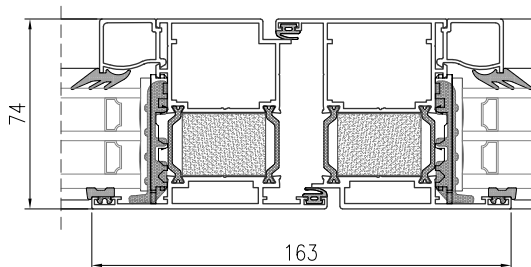
CROSS SECTION THROUGH
TM 74HI WINDOW
- SURFACE HINGES



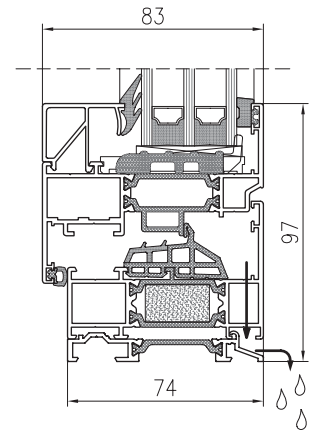
CROSS SECTION
THROUGH TM 74HI DOOR



CROSS SECTION THROUGH
CONNECTION OF LEAVES OF
TM 74HI DOUBLE-LEAF DOOR



CROSS SECTION THROUGH
TM 74HI WINDOW



TM 74HI - WINDOW AND DOOR SYSTEM
WITH THERMAL INSULATION

TECHNICAL PARAMETERS - TM 74HI

		WINDOWS	DOORS
ENERGY	Thermal insulation EN 10077-2	Uw from 0,75 W/m ² K	Uw from 1,0 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 31 ÷ 44 dB	Rw = 24 ÷ 42 dB
	Air permeability EN 12207	Class 4	Class 4
	Water tightness EN 12208	E2100	E900
SAFETY	Wind load resistance EN 12210	Class C4/B4	Class C5/B5
	Anti-theft protection EN 1627	RC2, RC2N, RC3	RC2, RC2N, RC3

TECHNICAL PROPERTIES - TM 74HI

	WINDOWS	DOORS
Frame structural depth	74 mm	74 mm
Sash/leaf structural depth	83,4 mm	74 mm
Infill thickness	16 ÷ 66 mm	35 ÷ 69 mm
Maximum sash/leaf dimensions L x H	1300 x 2800 mm	1400 x 2800 mm/ 2300 x 2700 mm
Maximum sash/leaf weight	180 kg	250 kg
Structure type	fixed, turn, tilt, turn and tilt window	single-leaf, double- leaf doors, doors with transom window and sidelights

TM
62HI

WINDOW AND DOOR SYSTEM
WITH THERMAL INSULATION

good thermal insulation

TM 62HI - SYSTEM FEATURES

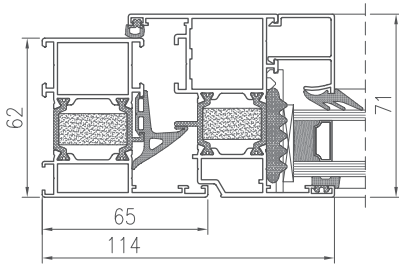
- savings on energy that translate to the building heating costs reduction,
- possibility of manufacturing windows, doors and display windows with improved anti-theft properties,
- the system allows profiles bending, which gives greater flexibility in design and assembly.



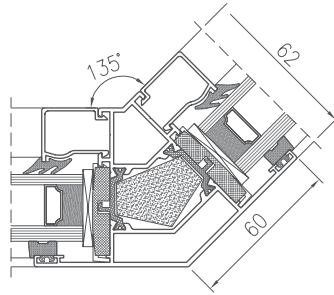
See the product
on the website

Picture: Residential Estate Galeria Park, Warsaw
Design: KAPS Architects, Warsaw
Aluminium manufacturer: MBB, Toruń

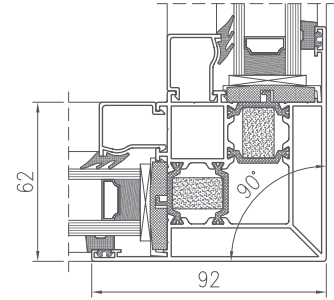
CROSS SECTION THROUGH
TM 62HI WINDOW



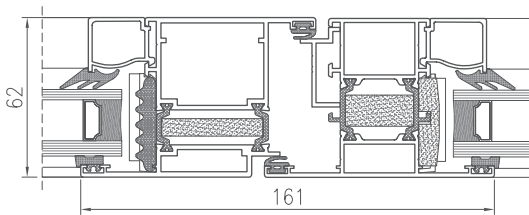
CROSS SECTION - CORNER
CONNECTION 135° TM 62HI



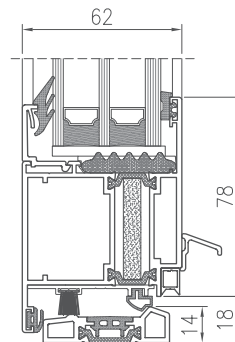
CROSS SECTION - CORNER
CONNECTION 90° TM 62HI



CROSS SECTION THROUGH
TM 62HI DOOR WITH SIDELIGHT



CROSS SECTION THROUGH
TM 62HI DOOR



TECHNICAL PARAMETERS - TM 62HI

		WINDOWS	DOORS
ENERGY	Thermal insulation EN 10077-2	Uw from 0,8 W/m ² K	Uw from 1,2 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 35 ÷ 42 dB	Rw = 35 ÷ 44 dB
	Air permeability EN 12207	Class 4	Class 2
	Water tightness EN 12208	E1050	3A
SAFETY	Wind load resistance EN 12210	-	Class C5/B5
	Anti-theft protection EN 1627	RC2, RC3	RC2, RC3

TECHNICAL PROPERTIES - TM 62HI

	WINDOWS	DOORS
Frame structural depth	62 mm	62 mm
Sash/leaf structural depth	71,4 mm	62 mm
Infill thickness	6 ÷ 54 mm	6 ÷ 54 mm
Maximum sash/leaf dimensions L x H	1300 x 2600 mm	1300 x 2600 mm/ 2400 x 2600 mm
Maximum sash/leaf weight	180 kg	180 kg
Structure type	fixed, turn, tilt, turn and tilt window	single-leaf, double- leaf doors, doors with transom window and sidelights



Industrial



Industrial



Industrial

WINDOW SYSTEM WITH THERMAL INSULATION



industrial design

TM 77HI/74HI/62HI INDUSTRIAL - SYSTEM FEATURES

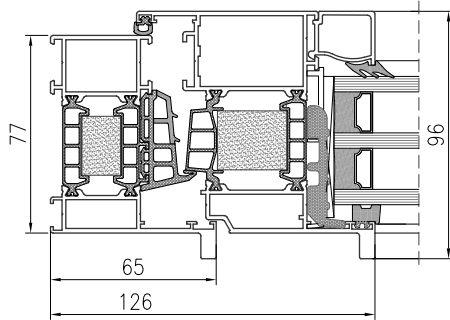
- excellent values of heat transfer coefficient,
- effective water draining system,
- aesthetics ensured due to narrow window frame visible from the outside,
- possibility of creating modern window structures in various arrangements,
- perfect substitution of old steel windows in modernised industrial facilities, lofts and tenement houses. They allow for maintaining the industrial character of the building and meeting the requirements of modern architecture at the same time,
- possibility of connecting with all YAWAL systems, particularly intended for connection with TM 62HI, TM 74HI, and TM 77HI systems.



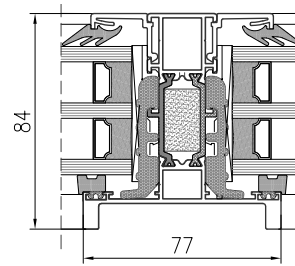
See the product
on the website

Picture: Monopolis, Łódź
Design: Grupa 5 Architekci Sp. z o.o., Warsaw
Aluminium manufacturer: OLI Sp. z o.o., Piotrków Trybunalski

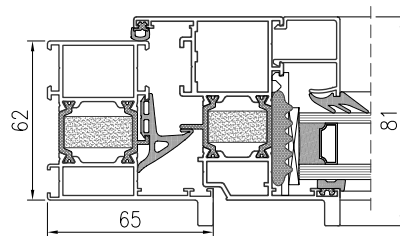
CROSS SECTION THROUGH
TM 77HI INDUSTRIAL WINDOW



CROSS-SECTION THROUGH
TM 74HI INDUSTRIAL MULLION



CROSS SECTION THROUGH
TM 62HI INDUSTRIAL WINDOW



TECHNICAL PARAMETERS - INDUSTRIAL

	TM 77HI INDUSTRIAL	TM 74HI INDUSTRIAL	TM 62HI INDUSTRIAL
Thermal insulation EN 10077-2	Uw from 0,66 W/m ² K	Uw from 0,75 W/m ² K	Uw from 0,8 W/m ² K
Acoustic insulation EN ISO 140-3	Rw = 39 ÷ 48 dB	Rw = 31 ÷ 44 dB	Rw = 35 ÷ 42 dB
Air permeability EN 12207	Class 4	Class 4	Class 4
Water tightness EN 12208	E1650	E2100	E1050
Wind load resistance EN 12210	Class C5/B5	Class C4/B4	-
Anti-theft protection EN 1627	RC2, RC3, RC4	RC2, RC2N, RC3	RC2, RC3

TECHNICAL PROPERTIES - INDUSTRIAL

	TM 77HI INDUSTRIAL	TM 74HI INDUSTRIAL	TM 62HI INDUSTRIAL
Frame structural depth	77 mm	74 mm	62 mm
Sash/leaf structural depth	86,4 mm	83,4 mm	71,4 mm
Infill thickness	19 ÷ 67 mm	16 ÷ 66 mm	6 ÷ 54 mm
Maximum dimensions L x H	1600 x 3000 mm	1300 x 2800 mm	1300 x 2600 mm
Maximum sash/leaf weight	180 kg	180 kg	180 kg
Structure type	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window

TM
77HI
US

TM
74HI
US

TM
62HI
US

WINDOW SYSTEM WITH THERMAL INSULATION



hidden sash effect

TM 77HI/74HI/62HI US - SYSTEM FEATURES

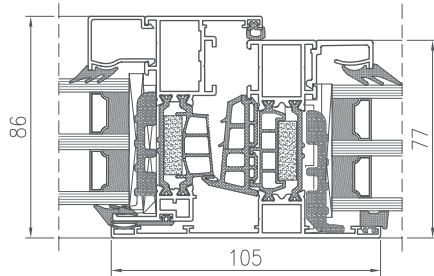
- possibility of obtaining the minimalism of the sash on the outside by hiding it in the frame,
- innovative design makes it possible to achieve construction simplicity,
- excellent values of heat transfer coefficient,
- an alternative to fixed glazing by obtaining the fix effect while maintaining the turn function,
- it is possible to connect it with all YAWAL systems.



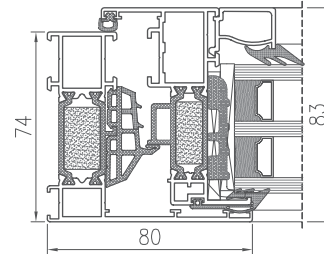
See the product
on the website

Picture: Polish-Japanese Academy of Information Technology in Warsaw
Design: Chmielewski Skala Architects
Aluminium manufacturer: Alures Sp. z o.o.

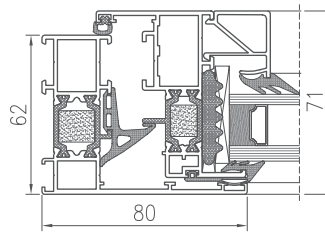
CROSS SECTION THROUGH MULLION IN TM 77HI WINDOW WITH A HIDDEN SASH



CROSS SECTION THROUGH TM 74HI WINDOW WITH A HIDDEN SASH



CROSS-SECTION THROUGH TM 62HI WINDOW



TECHNICAL PARAMETERS - US

	TM 77HI US	TM 74HI US	TM 62HI US
Thermal insulation EN 10077-2	Uw from 0,7 W/m ² K	Uw from 0,8 W/m ² K	Uw from 0,9 W/m ² K
Air permeability EN 12207	Class 4	Class 4	Class 4
Water tightness EN 12208	E1050	E1050	E1050
Wind load resistance EN 12210	Class C5/B5	Class C4/B4	-
Anti-theft protection EN 1627	RC2, RC3, RC4	RC2, RC2N, RC3	RC2, RC3

TECHNICAL PROPERTIES - US

	TM 77HI US	TM 74HI US	TM 62HI US
Frame structural depth	77 mm	74 mm	62 mm
Sash/leaf structural depth	79,9 mm	76,9 mm	74,9 mm
Infill thickness	24 ÷ 67 mm	24 ÷ 64 mm	24 ÷ 52 mm
Maximum dimensions L x H	1300 x 2700 mm	1300 x 2500 mm	1300 x 2400 mm
Maximum sash/leaf weight	150 kg	150 kg	150 kg
Structure type	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window



TM
77HI

TM
74HI

TM
62HI

WINDOW SYSTEM WITH THERMAL INSULATION

Outward

Outward

Outward

outward opening windows

TM 77HI/74HI/62HI OUTWARD - SYSTEM FEATURES

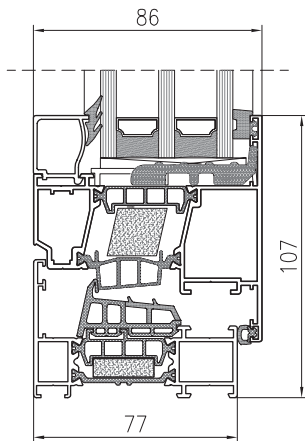
- outward opening windows do not take up space inside the room,
- possibility of adapting the system to the expected level of thermal insulation,
- excellent tightness of the structure,
- an export product that meets the requirements of the Scandinavian and British markets,
- possibility of creating modern window structures in various arrangements,
- possibility of connecting with all YAWAL systems.



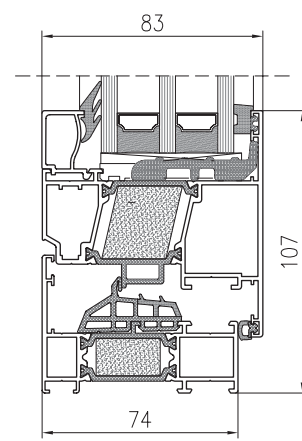
See the product
on the website

Picture: Primary School no. 3, Ruda Śląska
Design: Salwator & Architekci and VERSO Group
Aluminium manufacturer: Domkat Sp. z o.o

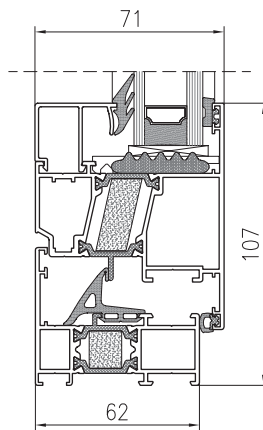
CROSS SECTION THROUGH
TM 77HI OUTWARD WINDOW



ROSS SECTION THROUGH
TM 74HI OUTWARD WINDOW



CROSS SECTION THROUGH
TM 62HI OUTWARD WINDOW



TECHNICAL PARAMETERS - OUTWARD

	TM 77HI OUTWARD	TM 74HI OUTWARD	TM 62HI OUTWARD
Thermal insulation EN 10077-2	Uw from 0,66 W/m ² K	Uw from 0,75 W/m ² K	Uw from 0,8 W/m ² K
Acoustic insulation EN ISO 140-3	Rw = 39 ÷ 48 dB	Rw = 31 ÷ 44 dB	Rw = 35 ÷ 42 dB
Air permeability EN 12207	Class 4	Class 4	Class 4
Water tightness EN 12208	E1200	E1200	E1200
Wind load resistance EN 12210	Class C5/B5	Class C4/B4	-

TECHNICAL PROPERTIES - OUTWARD

	TM 77HI OUTWARD	TM 74HI OUTWARD	TM 62HI OUTWARD
Frame structural depth	77 mm	74 mm	62 mm
Sash/leaf structural depth	86,4 mm	83,4 mm	71,4 mm
Infill thickness	19 ÷ 67 mm	16 ÷ 66 mm	6 ÷ 54 mm
Maximum dimensions L x H	1600 x 3000 mm	1300 x 2800 mm	1300 x 2600 mm
Maximum sash/leaf weight	150 kg	150 kg	150 kg
Structure type	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window	fixed, turn, tilt, turn and tilt window



Automatic door



Automatic door



Automatic door

DOOR SYSTEM WITH THERMAL INSULATION

comfort and aesthetics

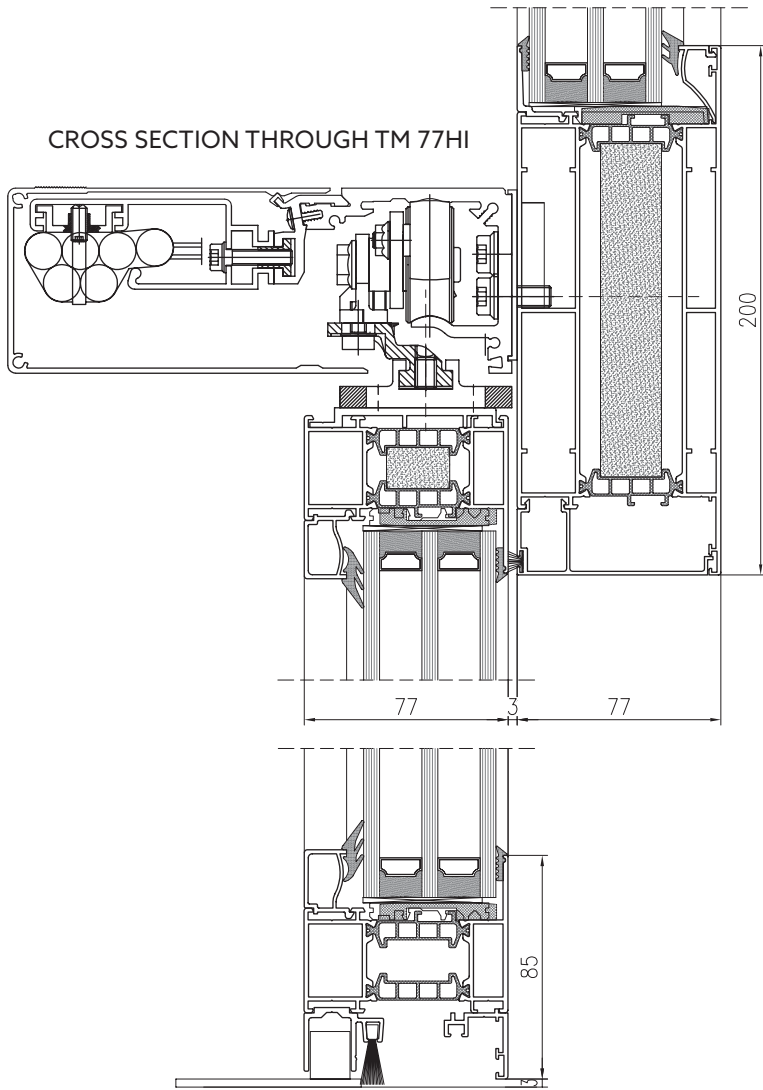
AUTOMATIC DOOR - SYSTEM FEATURES

- the system complies with the new EN 16005:2013 standard for doors with drives,
- the use of PIR and XPS foams as profile filling material,
- easy installation in the FA 50N façade,
- possibility of dividing the leaf with a crossbar,
- possibility of mounting various types of drives to control the door.

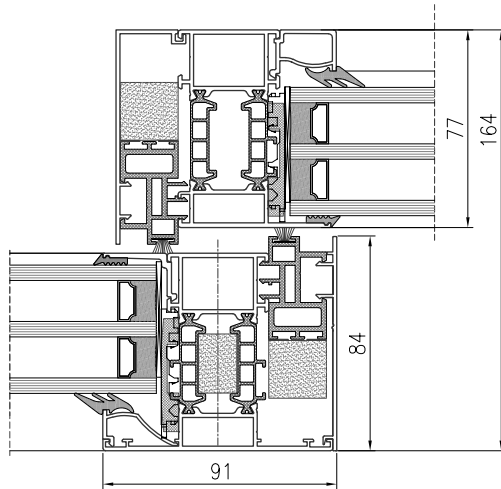


See the product on the website

Picture: Collegium Paderevianum II of the Jagiellonian University, Cracow
Design: Bończa Studio, Wieliczka
Aluminium manufacturer: Hossa Sp. z o.o., Katowice and Eurobud Grupa, Bystrowice



CROSS SECTION THROUGH DOOR LIMITER AT THE JOINT WITH THE WALL OF TM 77HI PROFILE



TM
82W
HI

WINDOWS SYSTEM
GLAZED INSIDE

large-dimension glazing

TM 82W HI - SYSTEM FEATURES

- facilitates the installation of large glazing, without the need to bring them inside the room,
- excellent thermal insulation of the solution,
- by designing clips and strips from the outside similar to FA 50N the structure visually resembles a mullion and transom façade,
- system installation of windows and doors, including panel doors,
- mullion is systemically prepared for the application of steel reinforcements to obtain better static parameters,
- window structure - the weight of the glass pane is transferred perpendicularly to the profile, no transom twisting effect,
- minimum number of new elements in the system and the possibility of using well-known and popular gaskets and connectors from other systems allows for the optimization of stock levels,
- unique design with no direct equivalent on the market.

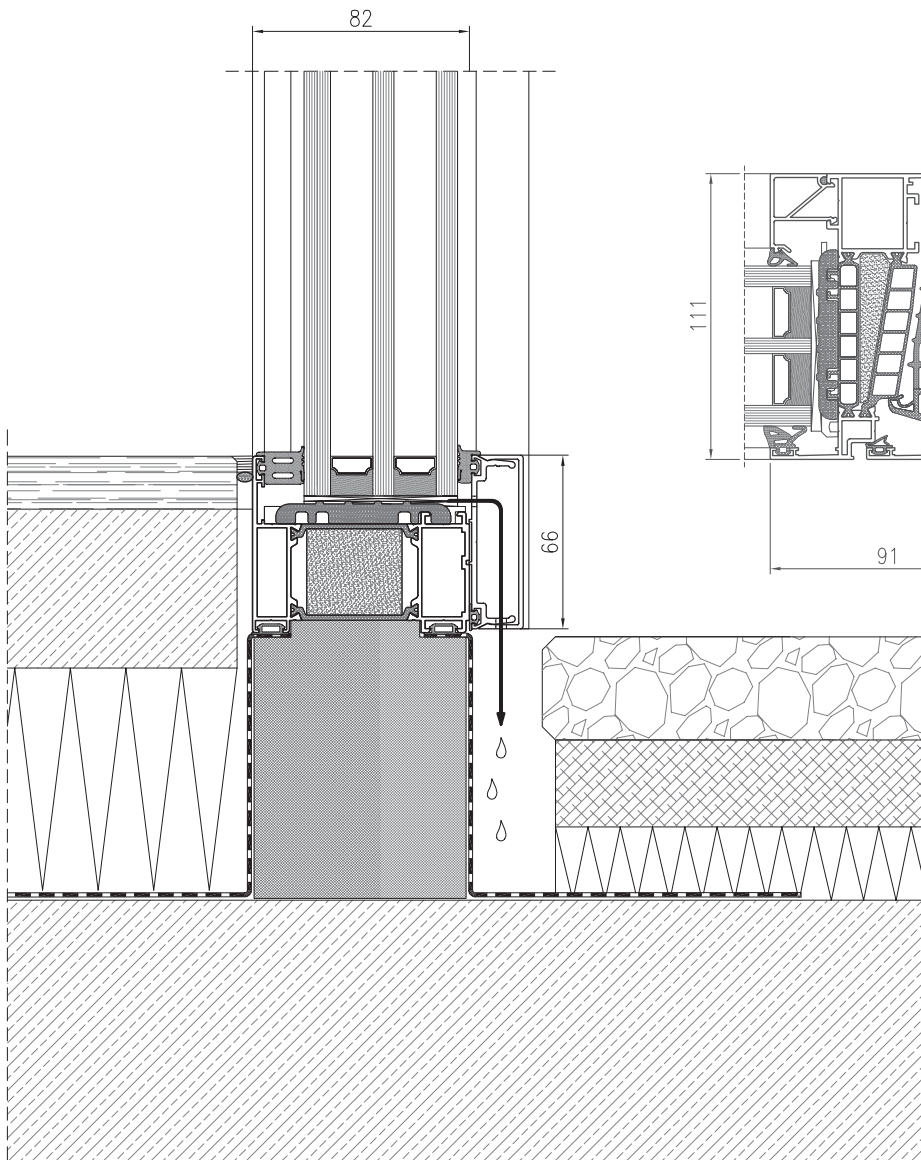


See the product
on the website

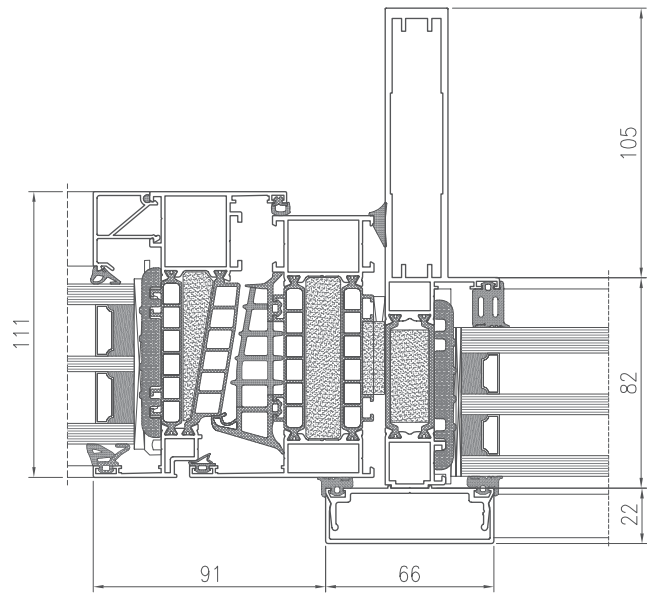


Picture: Private house
Design: MRZEWA Architects, Łódź,
Aluminium manufacturer: Zimny Sp. z o.o., Łódź

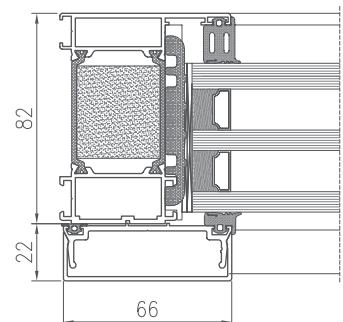
CROSS SECTION THROUGH
TM 82W HI WINDOW



CROSS SECTION THROUGH TM 102HI
WINDOW WITH FIXED TM 82W HI MULLION



CROSS SECTION THROUGH
TM 82W HI FRAME



TECHNICAL PARAMETERS - TM 82W HI

ENERGY	Thermal insulation EN 10077-2	U _w from 0,5 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	R _w = 39 ÷ 48 dB
	Air permeability EN 12207	Class 4
	Water tightness EN 12208	E900
SAFETY	Wind load resistance EN 12210	Class C5/B5

TECHNICAL PROPERTIES - TM 82W HI

Frame structural depth	102 mm
Sash/leaf structural depth	111,4 mm
Infill thickness	35 ÷ 69 mm
Maximum dimensions L x H	5000 x 4700 mm
Maximum sash/leaf weight	500 kg
Structure type	fixed window



MOREVIEW - SYSTEM FEATURES

- unlimited access to sunlight – transparency up to 98%,
- independent Moreview system structures can be connected at an angle of 90°,
- a static mullion allows for the construction of a series of fixed glazing, which can additionally be joined at any angle thanks to the use of an all-glass corner,
- manual or automatic control, the mechanism controlling the opening process, depending on the needs, can be hidden or mounted outside the structure,
- possibility of glazing from the outside,
- linear drainage integrated with the frame,
- possibility of constructing doors with max. height up to 4 m and max. sliding leaf weight up to 1200 kg,
- possibility of servicing the carriage set without having to remove the heavy leaves.

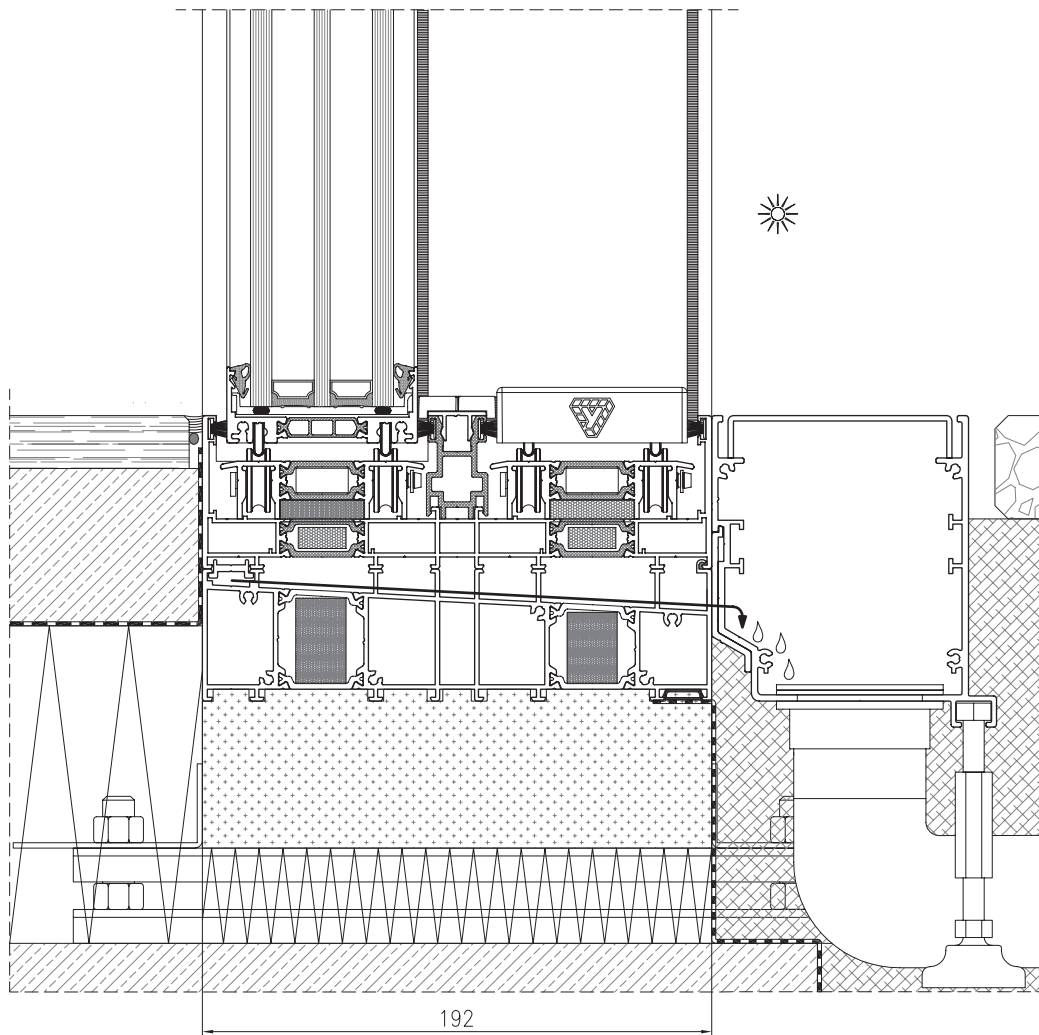


See the product
on the website



Picture: Examples of the system use.

CROSS SECTION THROUGH TWO-
RAIL MOREVIEW DOOR



TECHNICAL PARAMETERS – MOREVIEW

ENERGY	Thermal insulation EN 10077-2	Uw from 0,7 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 42 dB
	Air permeability EN 12207	Class 4
	Water tightness EN 12208	Class 8A
SAFETY	Wind load resistance EN 12210	Class C4
	Anti-theft protection EN 1627	RC2

TECHNICAL PARAMETERS – MOREVIEW

Frame structural depth	90 mm, 192 mm, 294 mm
Leaf structural depth	72 mm
Infill thickness	31 ÷ 36 mm and 50 ÷ 60 mm
Maximum dimensions L x H	leaf 4000 x 4000 mm
Maximum weight of manual leaf	400 kg
Maximum weight of automatic leaf	1200 kg
Maximum weight of fixed part	1200 kg
Structure type / leaves diagram	Diagrams: A, C, D, F, G, K, Galendage, 90° corners



ASYMMETRICAL CORNERS

New solution of the Moreview system allows for systemic connection of various window frames at an angle of 90° along with maintaining the level of glazing perfectly with the floor line.

Thanks to glazing resulting from the use of fixed windows, we can make the most of natural light and warmth. This will have a positive effect not only on our comfort of living, but will also reduce the costs of using the house.

FIXED GLAZING IN MOREVIEW STYLE

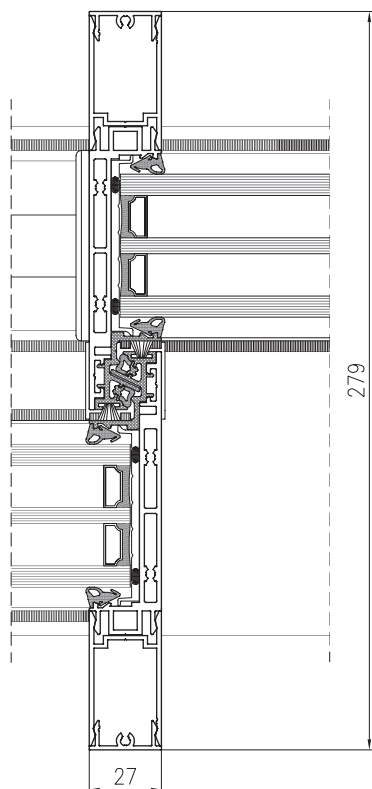
The Moreview system has been enriched with a new solution which makes it possible to design fixed glazing. Single frame, which was used up till now, has been modernized by adding a detachable fin facilitating the installation of a glazed units. This procedure allows us to manufacture single-sash fixed windows and corners composed of two fixed elements.

The solution is compatible with standard frames without separated fins, which is especially important in structures broken multiple times at various angles.

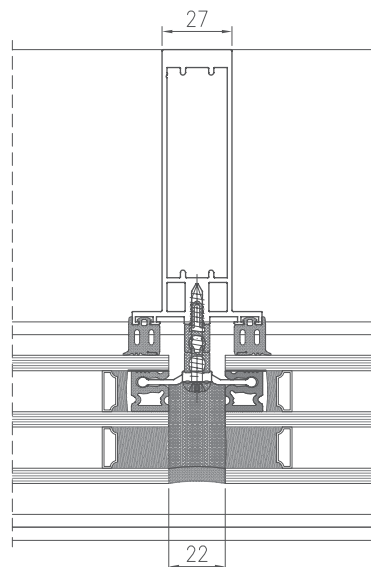


Picture: Examples of the system use..

CROSS-SECTION THROUGH MOREVIEW LEAVES CONNECTION



CROSS SECTION THROUGH MOREVIEW MULLION



AUTOMATION OF THE MOREVIEW CONTROL PROCESS

Within the MV system, two solutions are available for automating the sash sliding process:

- PREMIUM solution. The automatics is completely hidden in the Moreview frame, so the user does not see any structural element. The maximum weight of the moving sash is 1200 kg. The solution allows the control of leaves in virtually all configurations including corners and multi-leaf arrangements. The operator has a safety function including an overload system that stops the leaf on an obstacle and ensures that the leaf can be opened and closed in the event of a temporary power failure. The solution can be controlled by remote control, touch screen panel or android.
- A surface-mounted solution in which the operator bar is attached to the MV top frame from the inside. Nevertheless, the solution is characterised by elegance and minimalism. The user sees only a small inspection bar for service access. The maximum weight of the moving leaf is 700 kg. The surface-mounted solution is available in two variants: automatic sliding of one leaf or two leaves that slide sideways. It is possible to install the automation on an already installed MV structure.



MOREVIEW CONTROL FROM YOUR SMARTPHONE

OTHER SOLUTIONS IN THE MOREVIEW SYSTEM

- New sealing elements for even greater tightness requirements.
- New aluminium base for single rail with an inclined edge to facilitate condensate removal.



LARGE-SIZE SLIDING DOOR SYSTEM

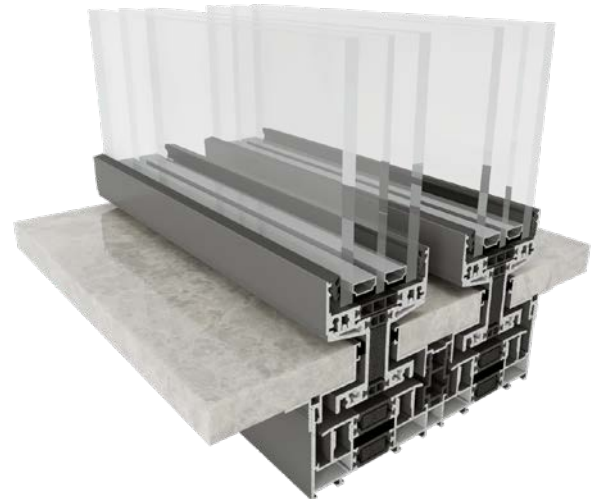
Class S



no barriers

MOREVIEW CLASS S – SYSTEM FEATURES

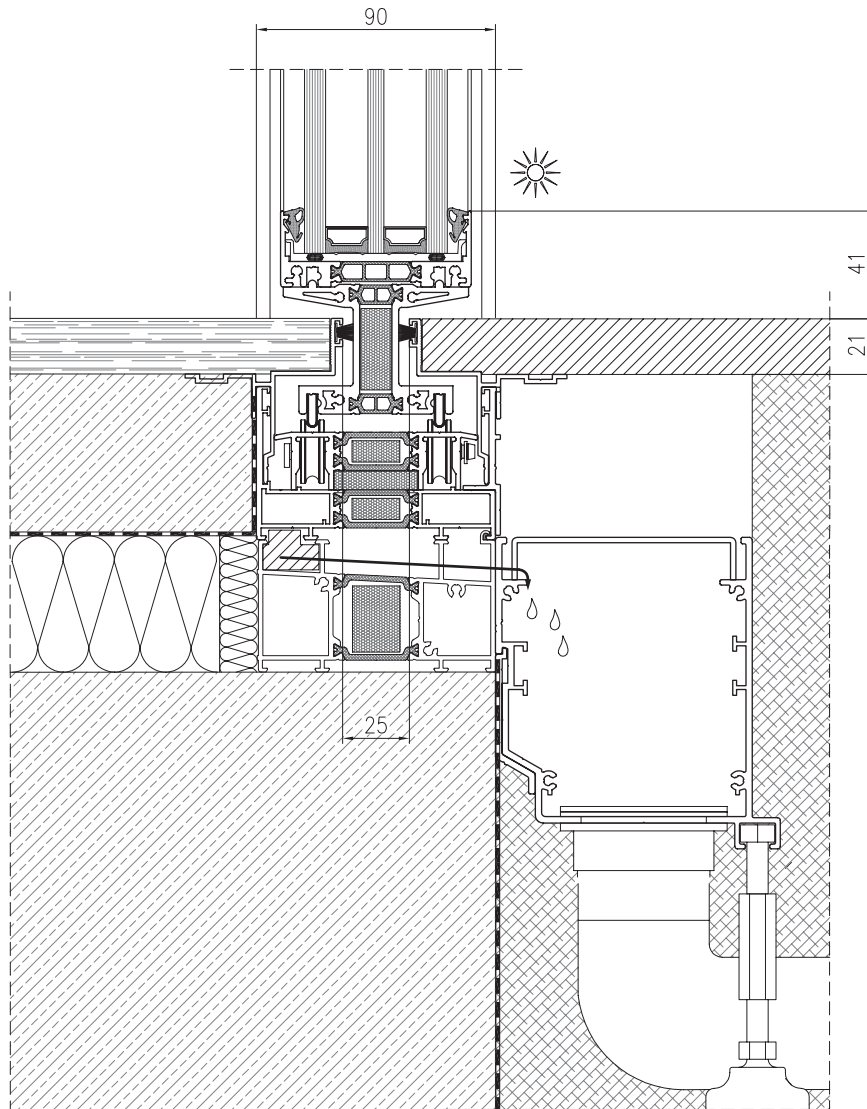
- comfort of use and cleaning,
- lightness in moving the leaves,
- an innovative solution for demanding customers,
- no thermal bridge - aluminium I-section with a thermal spacer ensures no condensation and prevents possible freezing at the threshold level,
- a very wide range of arrangement possibilities,
- possibility of automatic opening, which allows to increase the weight of the leaf up to 1200 kg (up to 400 kg with manual opening),
- the bottom frame and guide rails are recessed into the floor, making them completely invisible.
- the system is characterised by an aesthetically appealing narrow gap of only 25 mm.
- possibility of combination with other Yawal systems.



See the product on
the website

Picture: Examples of the system use.

CROSS-SECTION THROUGH THE SLOTTED SOLUTION



SLOTTED SOLUTIONS

MOREVIEW CLASS S is an ultra-modern solution that allows for almost complete elimination of the boundary between the inside and the outside. All structure elements are hidden under the floor. The user only sees narrow "gaps". This solution enables virtually unlimited possibilities of arranging the floor at the contact point of the house interior and the external surroundings, e.g. terrace.



DP
180

OVERHEAD SLIDING DOOR SYSTEM

Primeview



excellent thermal insulation properties

DP 180 PRIMEVIEW – SYSTEM FEATURES

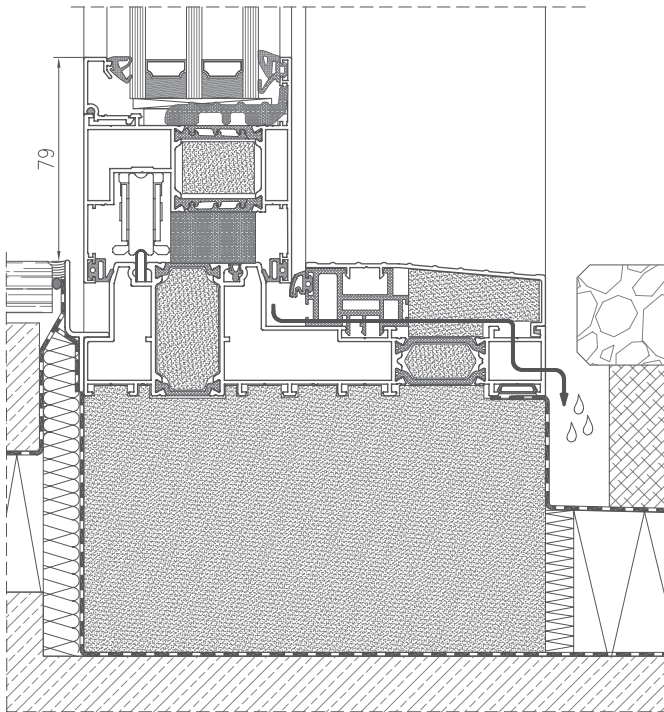
- possibility of making the structure with a narrow mullion in RC2 class,
- possibility of manufacturing doors of very large dimensions,
- possibility of manufacturing all-glass corner at an angle of 90° and a movable mullion,
- possibility of manufacturing doors with integrated threshold – no architectural barriers,
- divided thermal separators increasing resistance to thermal deformation of the leaf,
- possibility of installing automatic doors opening/closing system,
- micro ventilation in the standard variant,
- possibility of infill assembly from the outside,
- possibility of joining of glass panes without sash bars,
- linear drainage solution,
- possibility of using pleated mosquito nets in the monorail frame.



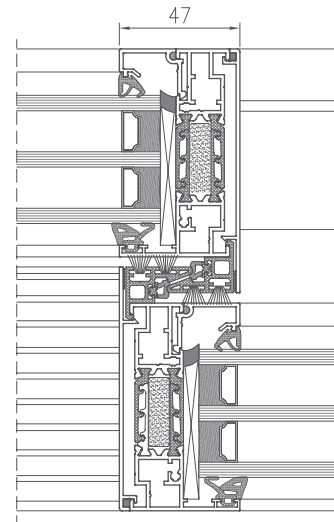
See the product
on the website

Picture: Private house
Aluminium manufacturer: Zimny Sp. z o.o., Łódź

CROSS SECTION THROUGH
DP 180 PRIMEVIEW DOOR, SLIM VERSION



CROSS SECTION THROUGH
DP 180 PRIMEVIEW MULLION



TECHNICAL PARAMETERS – DP 180 PRIMEVIEW

ENERGY	Thermal insulation EN 10077-2	Uw from 0,7 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 47 dB
	Air permeability EN 12207	Class 4
	Water tightness EN 12208	E1350
SAFETY	Wind load resistance EN 12210	Class C3
	Anti-theft protection EN 1627	RC2

TECHNICAL PARAMETERS – DP 180 PRIMEVIEW

Frame structural depth	180 mm with the extension possibility
Leaf structural depth	81 mm
Infill thickness	29 ÷ 63 mm
Maximum dimensions L x H	leaf 3300 x 3300 mm
Maximum weight of manual leaf	440 kg
Maximum weight of automatic leaf	600 kg
Maximum weight of fixed part	1200 kg
Structure type / leaves diagrams	Diagrams: A, C, D, F, G, K, Galendage, 90° corners

DP
180

OVERHEAD SLIDING DOOR SYSTEM

Primeview

actual low threshold

DP 180 PRIMEVIEW LOW THRESHOLD - SYSTEM

- exceptional energy efficiency ensures high energy savings,
- the system allows easy operation and offers high functionality, including
- the possibility of building a low threshold with a terrace,
- leaves closing mechanism ensures safe use of even large and heavy leaves,
- easy assembly and simplified production process thanks to the use of screwed corners.

DP 180 PRIMEVIEW SLIM - SYSTEM FEATURES

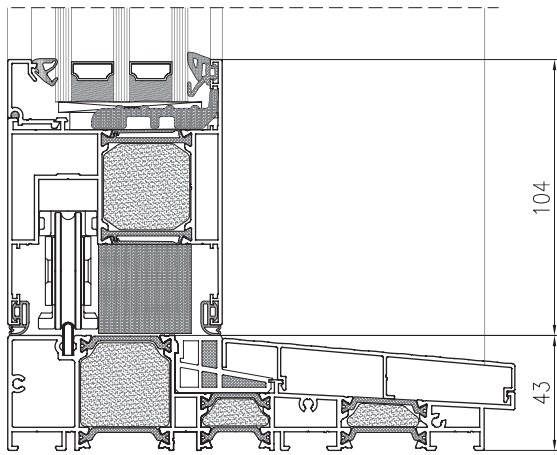
- innovative solution with a narrow mullion at the door leaf connection, only 47 mm thick,
- ensures high energy savings,
- the system guarantees a high level of safety and exceptional sound insulation,
- easy assembly and simplified production process thanks to the use of screwed corners.



See the product
on the website

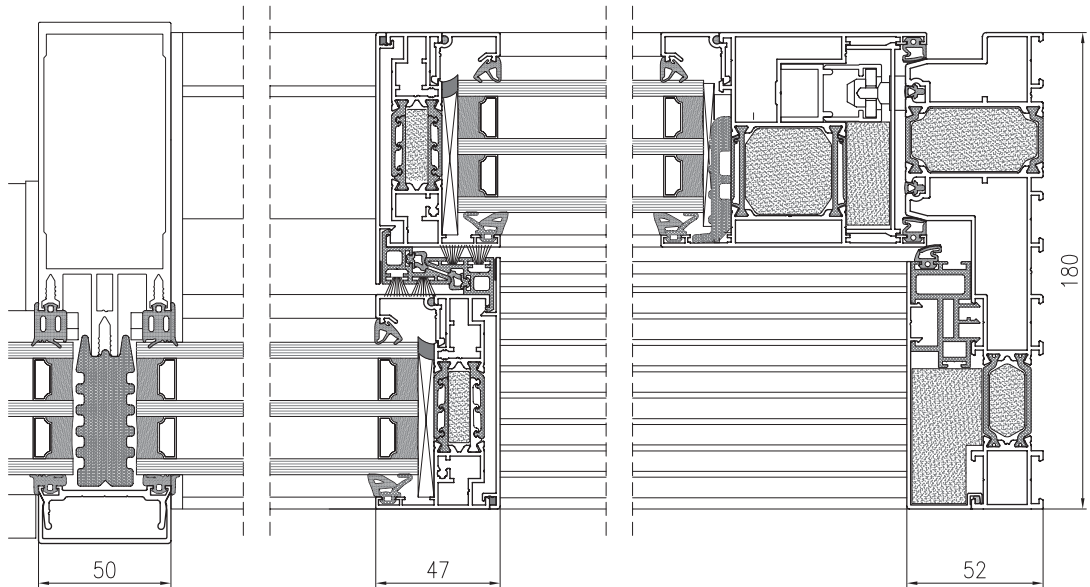
Picture: Examples of the system use.





CROSS SECTION THROUGH DP 180 PRIMEVIEW,
LOW THRESHOLD DOOR - SLIDING LEAF

CROSS SECTION THROUGH DP 180
PRIMEVIEW WITH FACADE



TECHNICAL PARAMETERS - DP 180 PRIMEVIEW

		LOW THRESHOLD	SLIM
ENERGY	Thermal insulation EN 10077-2	Uw from 0,7 W/m ² K	Uw from 0,7 W/m ² K
COMFORT	Air permeability EN 12207	Class 3	Class 4
	Water tightness EN 12208	Class 8A	Class 9A
SAFETY	Wind load resistance EN 12210	Class C2	Class C4

TECHNICAL PARAMETERS - DP 180 PRIMEVIEW

	LOW THRESHOLD	SLIM
Frame structural depth	180 mm with the possibility of extension	180 mm with the possibility of extension
Sash structural depth	81 mm	81 mm
Infill thickness	29 ÷ 63 mm	29 ÷ 63 mm
Maximum dimensions L x H	leaf 3300 x 3300 mm	leaf 3230 x 2900 mm
Maximum weight of manual leaf	440 kg	440 kg
Maximum weight of automatic leaf	600 kg	600 kg
Maximum weight of fixed part	1200 kg	1200 kg
Structure type / leaves diagram	Diagrams: A, C, D, G	Diagrams: A, C, D, G, K

DP
180

OVERHEAD SLIDING DOORS SYSTEM

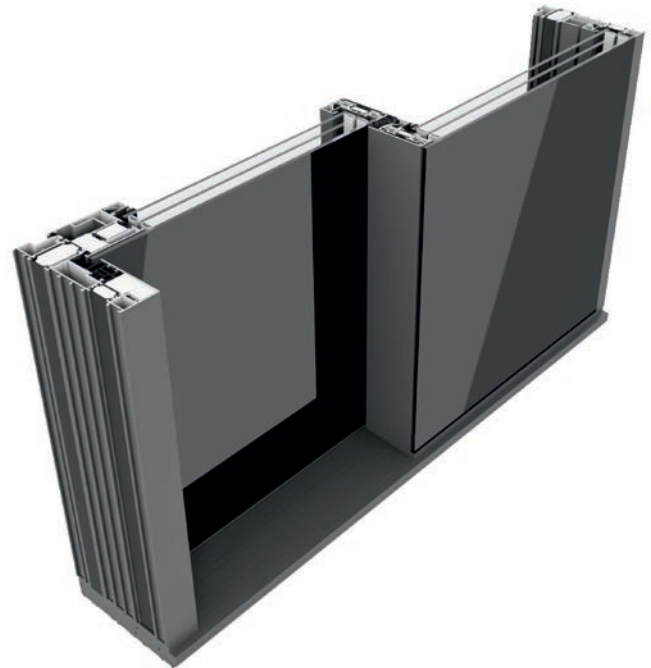
Primeview



excellent thermal insulation properties

DP 180 PRIMEVIEW GLASS - SYSTEM FEATURES

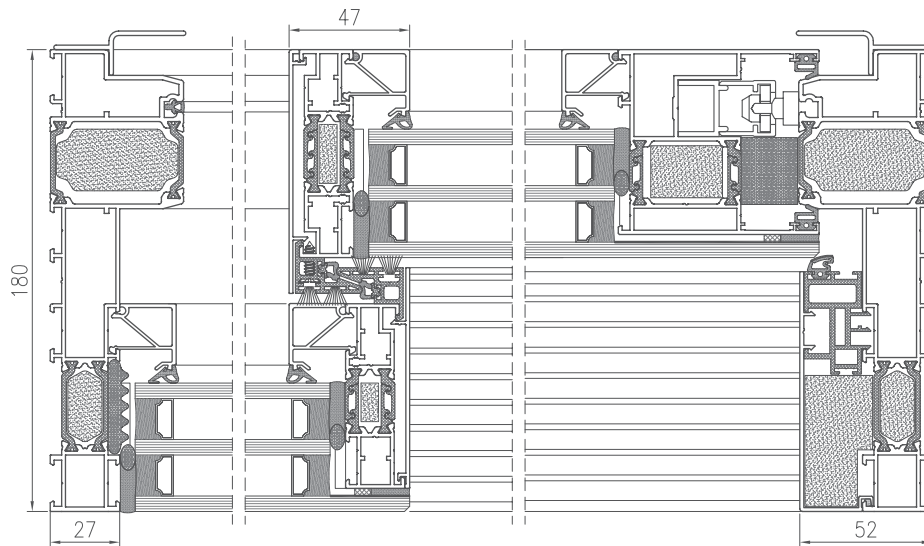
- a spectacular solution which completely eliminates the visibility of aluminium elements on the outside of the structure by adhered glass,
- enhanced natural light thanks to wide and large glazing surfaces,
- possibility of glazing from the outside with the possibility of hiding the door frame in the floor, ceiling and insulation layer,
- compatible with other systems in the Yawal offer.



See the product on
the website

Picture: Examples of the system use.

CROSS SECTION THROUGH
DP 180 PRIMEVIEW GLASS DOOR



TECHNICAL PARAMETERS - DP 180 GLASS

ENERGY	Thermal insulation EN 10077-2	Uw from 0,7 W/m ² K
COMFORT	Air permeability EN 12207	Class 4
	Water tightness EN 12208	E1650
SAFETY	Wind load resistance EN 12210	C4
	Anti-theft protection EN 1627	RC2

TECHNICAL PARAMETERS - DP 180 GLASS

Frame structural depth	180 mm with the extension possibility
Leaf structural depth	81 mm
Infill thickness	27 ÷ 71 mm
Maximum dimensions L x H	leaf 3210 x 3300 mm
Maximum weight of manual leaf	440 kg
Maximum weight of automatic leaf	600 kg
Maximum weight of fixed part	1200 kg
Structure type / leaves diagram	Diagrams: A, C, G

TM
77

ACCORDION DOOR SYSTEM

BiFold

numerous structural solutions

TM 77 BIFOLD – SYSTEM FEATURES

- large permitted dimensions and a wide span allowing the construction of doors with a leaf height of up to 3500 mm, a width of 1200 mm and a leaf weight of up to 120 kg,
- high thermal insulation properties and energy savings,
- solid structure based on reliable accordion fittings that retain their properties and efficiency for many years,
- available variant with increased thermal insulation thanks to the use of additional thermal inserts around the perimeter,
- versatility of configuration solutions with the use of multi-leaf compositions, even and odd, opening inward and outward of the building,
- additional compensation profiles giving the possibility of adjusting and increasing the clear opening,
- compatibility with TM 77HI window and door system and analogous connection of profiles

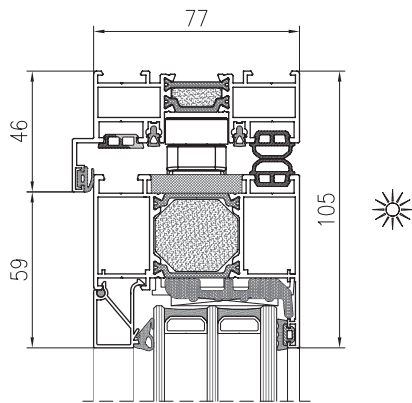


See the product
on the website

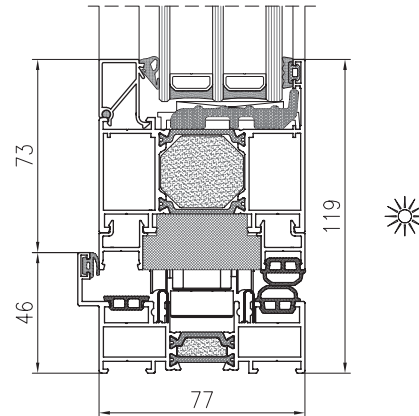


Picture: Examples of the system use.

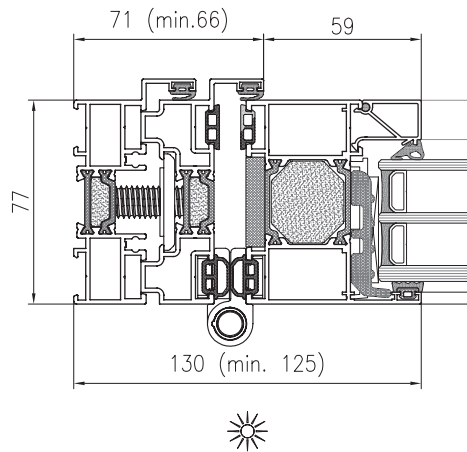
CROSS SECTION THROUGH
TM 77 BIFOLD DOOR



CROSS SECTION THROUGH
TM 77 BIFOLD DOOR



CROSS SECTION THROUGH
TM 77 BIFOLD DOOR



TECHNICAL PARAMETERS - TM 77 BIFOLD

ENERGY	Thermal insulation EN 10077-2	Uw from 0,95 W/m ² K
COMFORT	Air permeability EN 12207	Class 4
	Water tightness EN 12208	Class 9A
SAFETY	Wind load resistance EN 12210	Class C4

TECHNICAL PARAMETERS - TM 77 BIFOLD

Frame structural depth	77 mm
Leaf structural depth	77 mm
Infill thickness	21 ÷ 61 mm
Maximum dimensions L x H	1200 x 3500 mm (minimum width 600 mm)
Maximum weight of manual leaf	120 kg
Structure type / leaves diagrams	220, 220+, 330, 321, 321+, 440, 431, 422, 550, 550+, 541, 660, 651, 651+



economy

DP SLIDE - SYSTEM FEATURES

- simple and quick frame prefabrication thanks to cutting the door frame profiles at 90°,
- possibility of quick assembly and disassembly of the leaf thanks to the leaf profiles cut at 45 and connected with screwed connectors,
- easy glazing allowing simple replacement of glass in the event of breakage,
- patented solution of the drainage element that simplifies the drainage system of the structure and at the same time increases its efficiency,
- the only system of this class available on the market which enables manufacture of overhead sliding structures,
- the solution of the so called "narrow mullion" in DP 100 and DP 86 versions,
- 50 mm extension to facilitate the installation of the roller shutter box,
- possibility of combining the DP Slide structure with side transom windows,
- minimalistic appearance of the vertical profiles of the door frame,
- profiles allowing the so-called renovation assembly consisting in installation of the structure on the old frame masked with aluminium sections.

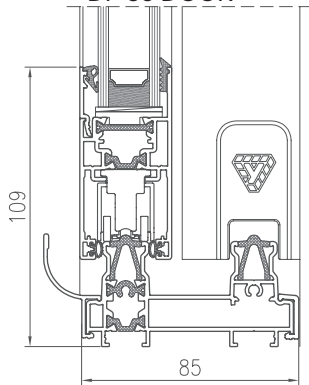


See the product
on the website

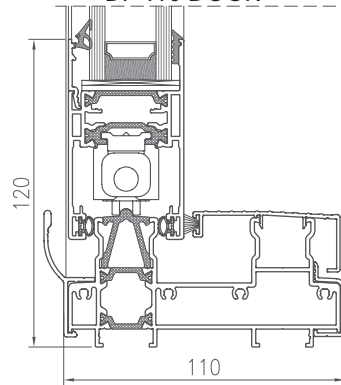
Picture: Private house

Aluminium manufacturer: Zimny Sp. z o.o., Łódź

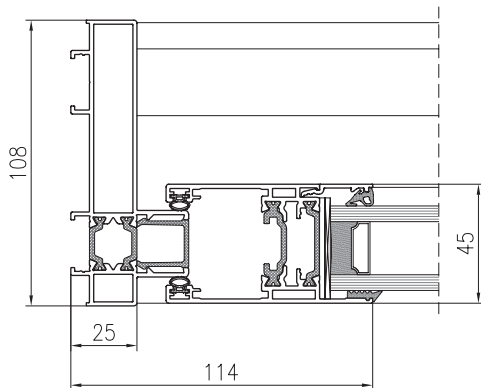
CROSS SECTION THROUGH DP 86 DOOR



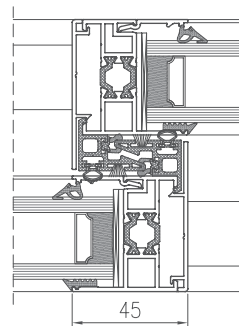
CROSS SECTION THROUGH DP 110 DOOR



CROSS SECTION THROUGH DP 110 DOOR



CROSS SECTION THROUGH NARROW DP 110 MULLION



TECHNICAL PARAMETERS – DP SLIDE

		DP 86	DP 110
ENERGY	Thermal insulation EN 10077-2	Uw from 1,5 W/m ² K	Uw from 1,3 W/m ² K
COMFORT	Air permeability EN 12207	Class 4	Class 4
	Water tightness EN 12208	Class 9A	Class 9A
SAFETY	Wind load resistance EN 12210	Class C4	Class C4

TECHNICAL PARAMETERS – DP SLIDE

	DP 86	DP 110
Frame structural depth	86 mm, 131 mm	108 mm, 167 mm
Sash structural depth	35,8 mm	45 mm
Infill thickness	15 ÷ 24 mm	24 ÷ 33 mm
Maximum dimensions L x H	1500 x 2400 mm	1800 x 2800 mm
Maximum weight of manual leaf	120 kg	200 kg
Structure type / leaves diagram	Diagrams: A, C, D, K, F	Diagrams: A, C, D, K, F

L
50

SLIDING DOOR SYSTEM



protection against weather conditions

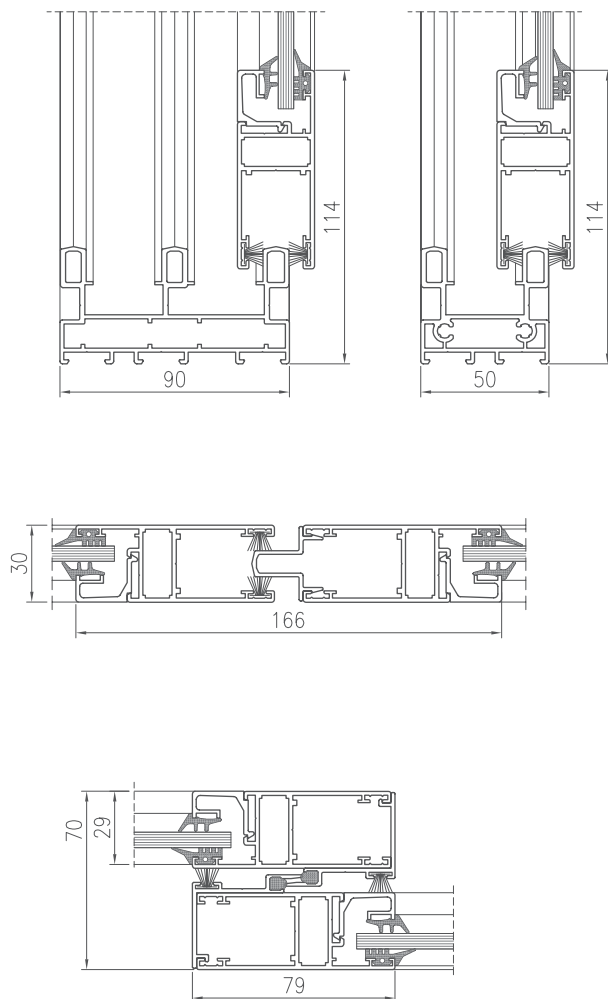
L 50 - SYSTEM FEATURES

- increased safety and comfort of residents,
- reduction of noise coming to the rooms from the outside,
- protection against weather conditions,
- possibility of using various types of infill,
- possibility of constructing multiple door frames,
- possibility of designing and manufacturing glazed sliding segments for balconies and loggias (L 50B) and sliding segments for partition walls (L 50S),
- L 50 system with glazed partition walls is inflammable and has been classified as a fire-retardant structure (NRO),
- possibility of connecting with all YAWAL systems.



See the product on
the website

Picture: Residential building, Kowno
Aluminium manufacturer: UAB „Alseka“

CROSS SECTION THROUGH
L 50 SLIDING LEAVES

TECHNICAL PARAMETERS – L 50

ENERGY	Thermal insulation EN 10077-2	system without thermal insulation
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 22 dB
SAFETY	Wind load resistance EN 12210	NRO

TECHNICAL PARAMETERS – L 50

Structural depth of a double-track frame	50 mm
Structural depth of a triple-track frame	89,5 mm
Leaf structural depth	30 mm
Infill thickness	4 ÷ 16 mm
Maximum dimensions L x H	window 1300 x 1650 mm door 1300 x 2800 mm
Maximum weight of manual leaf	130 kg
Structure type / leaves diagram	Diagrams: D, F

TM
77EI
30

FIRE PROTECTION WINDOW SYSTEM

excellent thermal conditions and safety

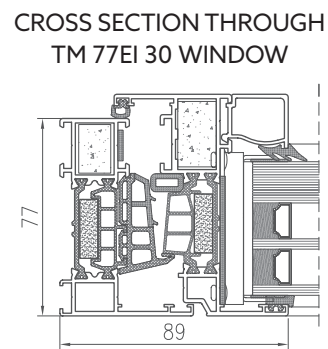
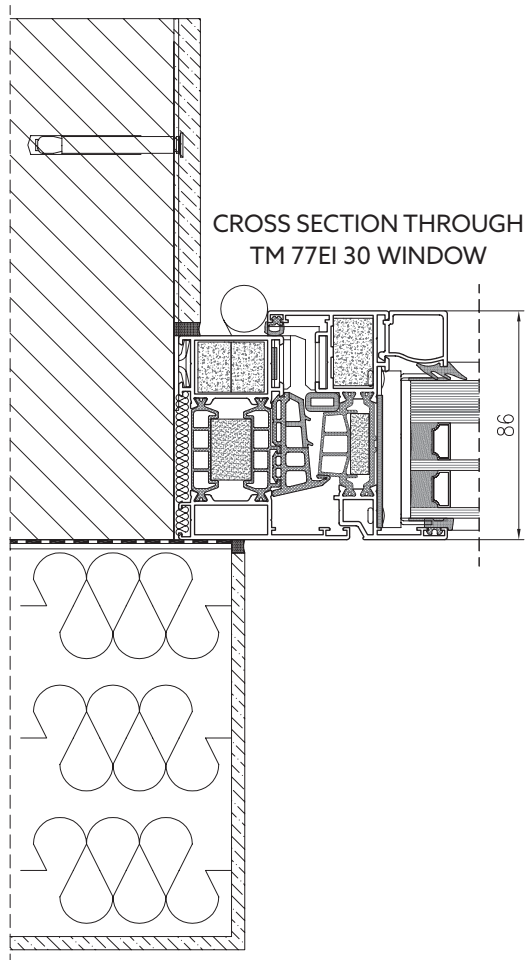
TM 77EI 30 – SYSTEM FEATURES

- an excellent thermal properties thanks to a three-chamber construction with the PIR insert in the middle and GKF insert from the inside,
- an extend range of fire-proof glass panes which can be used, starting at frameless glass panes to double-chamber units,
- possibility of using fittings in class RC2 and RC3,
- possibility of constructing opening windows with transom windows and sidelights,
- the system connects two functionalities: an excellent thermal insulation and fire resistance at the EI 30 level,
- use of air vents,
- possibility of combination with other Yawal systems.



See the product
on the website

Picture: WITOSA POINT, Warsaw
Design: 4am Architects, Warszawa
Aluminium manufacturer: ROBDAR S.C. Dariusz i Robert Paduch, Jazgrzew



TECHNICAL PARAMETERS - TM 77EI 30

ENERGY	Thermal insulation EN 10077-2	Uw from 0,822 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	from 39 ÷ 48 dB
	Air permeability EN 12207	Class 4
	Water tightness EN 12208	Class E 1650 Pa
SAFETY	Fire resistance EN 13501-2	EI 30

TECHNICAL PROPERTIES - TM 77EI 30

Frame structural depth	77 mm
Sash structural depth	86,4 mm
Infill thickness	61 mm
Maximum dimensions L x H	1570 x 2450 mm

TM
75EI

SYSTEM OF FIRE PROTECTION
WALLS AND DOORS

fire protection system

TM 75EI - SYSTEM FEATURES

- the system allows the construction of fire protection walls and doors of fire resistance class from EI 30 to EI 60, that may be used as indoors and outdoors partitions,
- symmetrical structure of profiles,
- system classified as smoke proof in classes Sa and S200,
- materials classified as NRO (fire retardants),
- large selection of construction solutions: from partition walls, display windows, to single-leaf and double-leaf doors (available with transom window or sidelights),
- infills with glazed pane unit and double-chamber panes,
- a wide selection of fire protection glass panes manufacturers,
- new insulation infills that improve heat transfer coefficient.

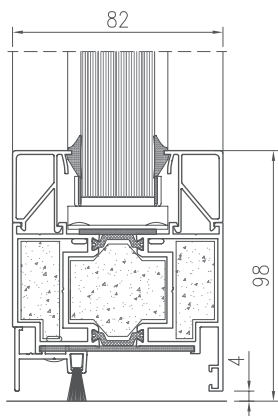


See the product
on the website

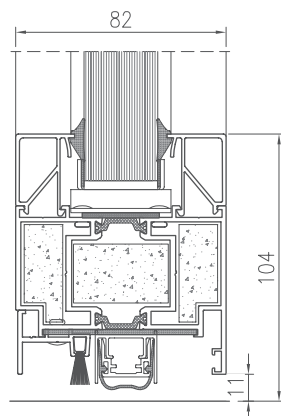


Picture: Małopolska Garden of Arts, Cracow
Design: Ingarden & Ewy Architekci, Cracow
Aluminium manufacturer: Arton Sp. z o.o., Częstochowa

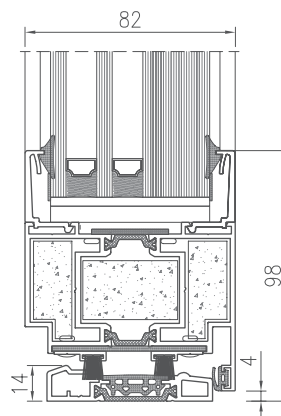
CROSS SECTION THROUGH INTERNAL TM 75EI 60 DOOR



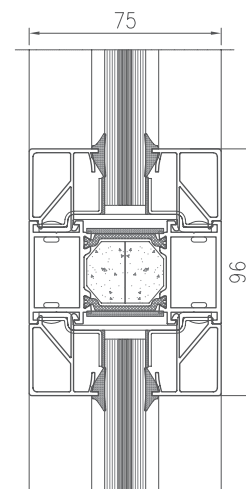
CROSS SECTION THROUGH INTERNAL TM 75EI 60 DOOR - DROP-DOWN SEAL



CROSS SECTION THROUGH EXTERNAL TM 75EI 60 DOOR



CROSS-SECTION THROUGH TM 75EI 30 MULLION



TECHNICAL PARAMETERS - TM 75EI

		INTERNAL DOORS	EXTERNAL DOORS
ENERGY	Thermal insulation EN 10077-2	Uf from 2,0 W/m ² K	Uf from 2,0 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 30 ÷ 40	Rw = 30 ÷ 40
	Air permeability EN 12207	Class 2	Class 4
	Water tightness EN 12208	-	Class 8A
SAFETY	Wind load resistance EN 12210	Class C1	Class C2/B2
	Fire resistance EN 13501-2	EI 30, EI 60	EI 30, EI 60
	Resistance to cyclic opening/closing EN 16034	Class C5	Class C5
	Static torsion EN 1192	Class 4 (350N)	Class 4 (350N)
	Impact resistance to soft and heavy body EN 1192	Class 4 (180J)	Class 4 (180J)
	Impact resistance to hard body EN 1192	Class 4 (8J)	Class 4 (8J)

TECHNICAL PROPERTIES - TM 75EI

	DOORS	FIXED WINDOWS
Frame structural depth	74,8 mm / 82 mm	74,8 mm / 82 mm
Leaf structural depth	74,8 mm / 82 mm	74,8 mm / 82 mm
Maximum dimensions L x H - single-leaf fire protection doors	1350 x 2990 mm or 1570 x 2710 mm	1350 x 2990 mm or 1570 x 2710 mm
Maximum dimensions L x H - double-leaf fire protection doors	2600 x 3050 mm or 2900 x 2875 mm	2600 x 3050 mm or 2900 x 2875 mm
Maximum dimensions L x H - single-leaf smoke proof fire protection doors	1400 x 2600 mm	1400 x 2600 mm
Maximum dimensions L x H - double-leaf smoke proof fire protection doors	2600 x 2600 mm	2600 x 2600 mm

acc. to the NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2021/1942 ver. 1

TM
75EI

ALL-GLASS FIRE PROTECTION WALLS
WITHOUT SASH BARS

aesthetics and safety

TM 75EI - SYSTEM FEATURES

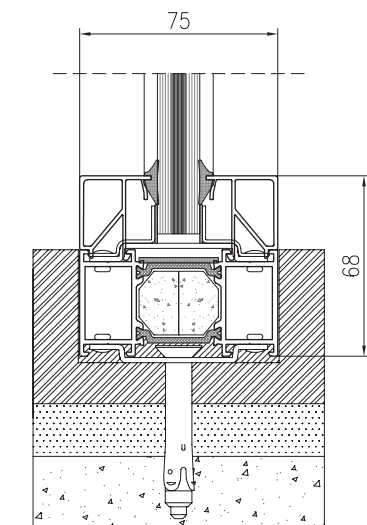
- TM 75EI system allows the construction of all-glass fire protection walls without sash bars (without visible vertical profiles between glass panes),
- profile separating glass sheets is invisible (only profile around the structure is visible),
- possibility of constructing walls up to 3840 mm,
- possibility of assembly of TM 75 EI system with fire resistance class EI 30 and EI 60,
- possibility of selecting glass manufacturer EI 30 and EI 60: Vetrotech, SAINT-GOBAIN and AGC and EI 30 Bohamet.



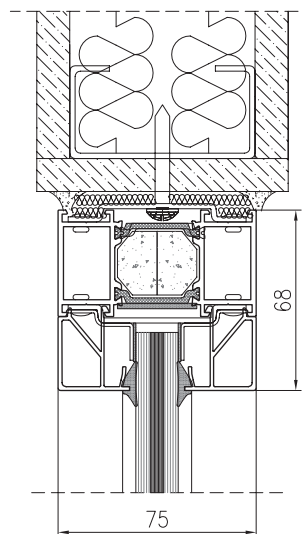
See the product
on the website

Picture: Office building VIA CON, Rydzyna near Leszna
Design: Designing studio INSPIRE Ewa Gbiorczyk, Dąbcze
Aluminium manufacturer: BUMET-GREKOR LESZNO Sp. z o.o., Leszno

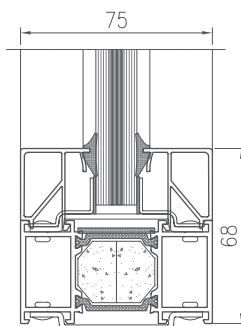
CROSS SECTION THROUGH
TM 75EI WINDOW



CROSS SECTION THROUGH
TM 75EI WINDOW



CROSS SECTION THROUGH
INTERNAL TM 75EI 30 WALL



TECHNICAL PARAMETERS - TM 75EI

		INTERNAL WALLS	EXTERNAL WALLS
COMFORT	Air permeability EN 12152	-	Class A4
	Water tightness EN 12154	-	R7
SAFETY	Impact resistance to soft body	IVc	I3/E3 and heavy body EN 14019

TECHNICAL PROPERTIES - TM 75EI

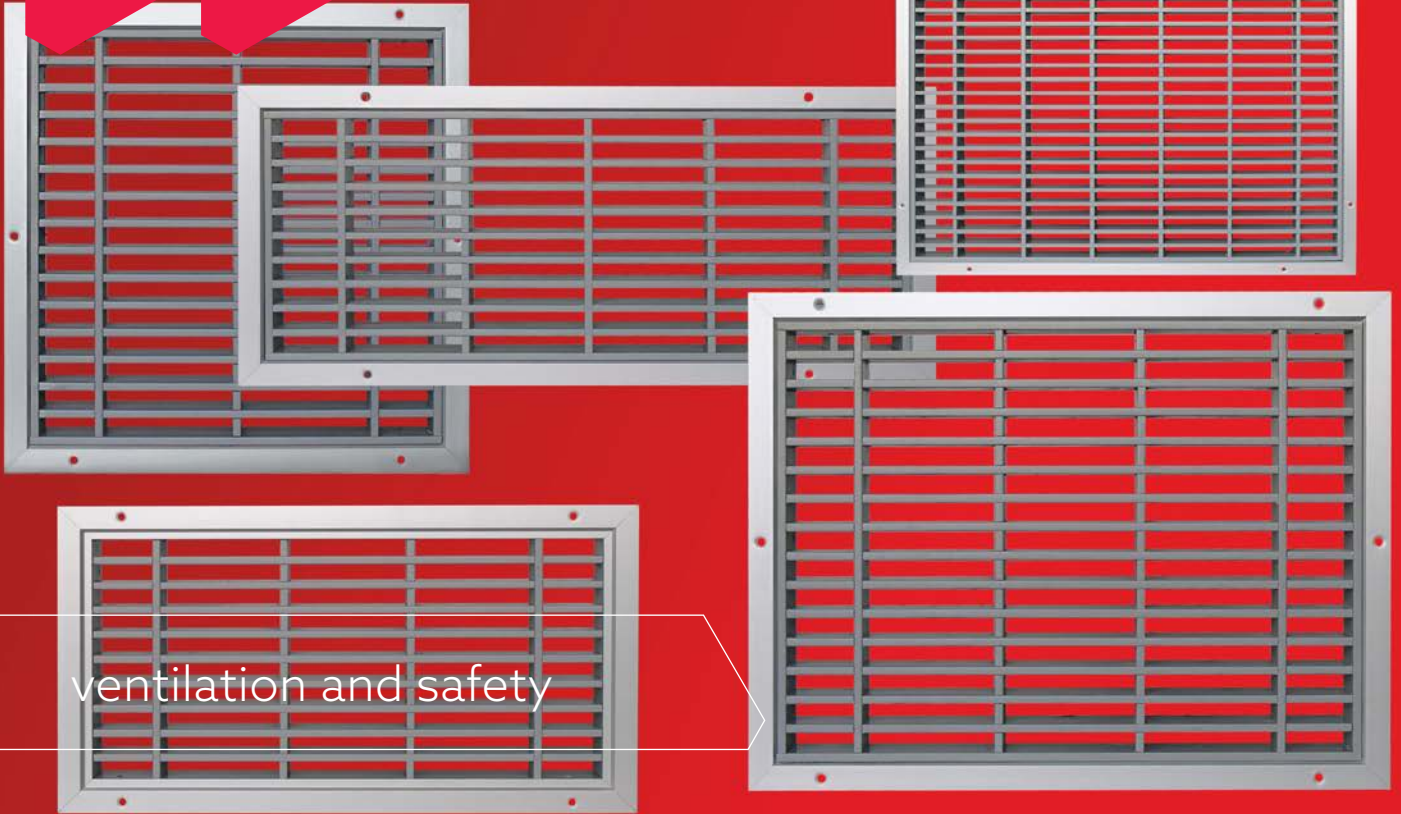
Maximum height of internal and external walls - profiles fire protection wall 5000 mm (EI 30), 4950 mm (EI 60)

Maximum height of internal and external walls - ściana całoszklana ppoż. 3094 mm (EI 30),

TM
75EI

TM
62EI

VENTILATION GRIDS



VENTILATION GRIDS – SYSTEM FEATURES

- two-sided ventilation grids with clearance are dedicated to use in fire protection doors with fire resistance 30 or 60 minutes,
- filled with thermally expanding composite, swelling in 120 degrees creating tight and non-flammable barrier,
- they also provide good ventilation of rooms and protection against fire and smoke,
- grids are available in various dimensions and with various flow rates,
- they may be used in public utility buildings.

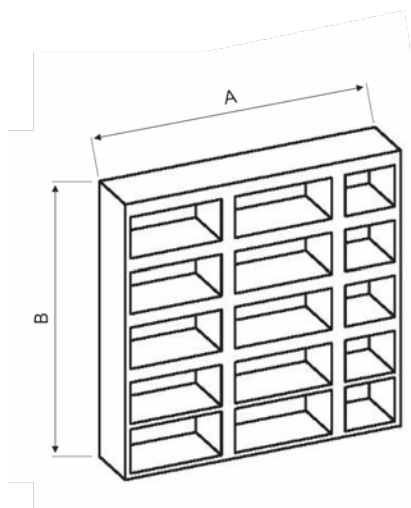
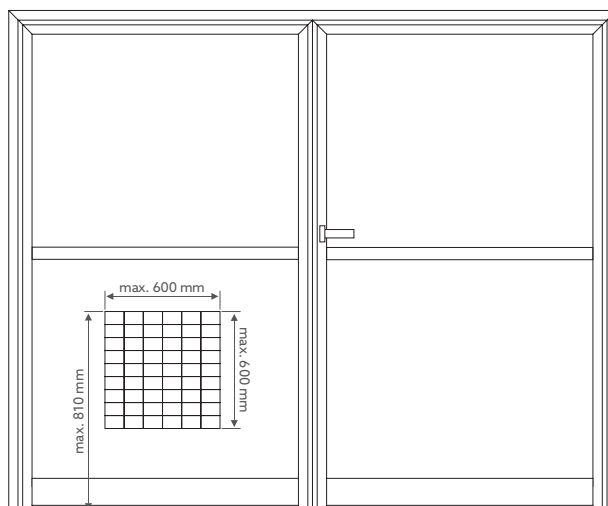
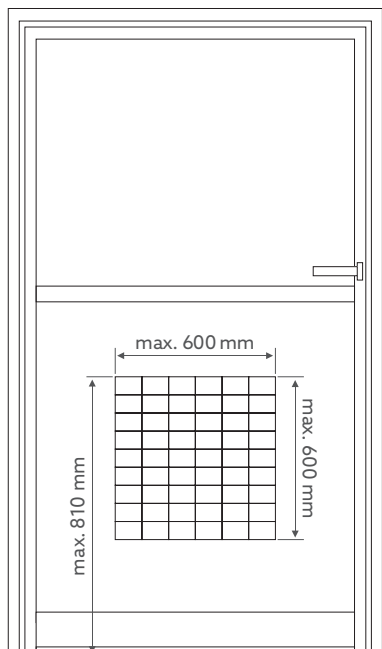


See the product
on the website

ASSEMBLY METHOD

The grid is equipped with flange for easy assembly. Additionally, there are tapered holes for transit screws, so the grids are firmly fixed. Grids are delivered as a set with back frame and screws.

Grids are anodised in F1 colour. On demand the grid may be coated (powder coating) with high-quality corrosion-resistant paint (RAL palette).



DIMENSIONS OF VENTILATION GRIDS

NO. OF ELEMENT	A	B	NO. OF ELEMENT	A	B
610.2020.0	200	200	610.5075.0	500	75
610.3020.0	300	200	610.5020.0	500	200
610.3030.0	300	300	610.5030.0	500	300
610.4020.0	400	200	610.5060.0	500	600
610.4030.0	400	300	610.6040.0	600	400
610.4576.0	450	76	610.6060.0	600	600

TECHNICAL PARAMETERS - VENTILATION GRIDS

SAFETY

Fire resistance

from EI 30 to EI 60

TECHNICAL PARAMETERS - VENTILATION GRIDS

Grid dimensions

Min. - 200 x 200 mm
Max. - 600 x 600 mm

TM
62EI

SYSTEM OF FIRE PROTECTION
WALLS AND DOORS



economic fire protection system

TM 62EI - SYSTEM FEATURES

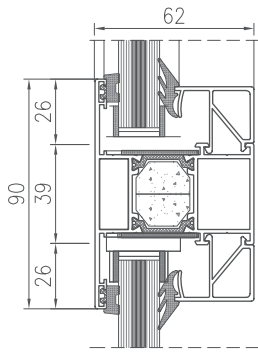
- wide range of application as indoors and outdoors fire protection partitions in fire resistance class EI30,
- materials classified as NRO (fire retardants),
- optimal thermal insulation.



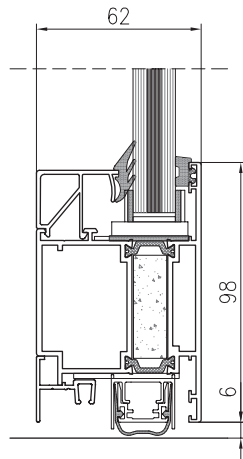
See the product
on the website

Picture: Residential Estate Galeria Park, Warsaw
Design: KAPS Architects, Warsaw
Aluminium manufacturer: MBB Bernaciak Marek, Toruń

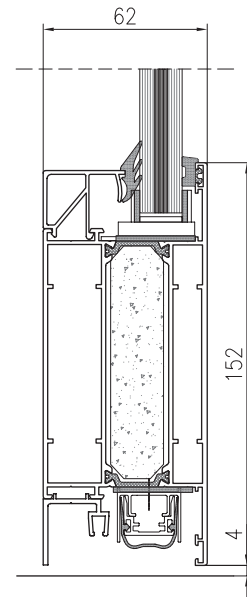
CROSS-SECTION THROUGH TM 62EI MULLION



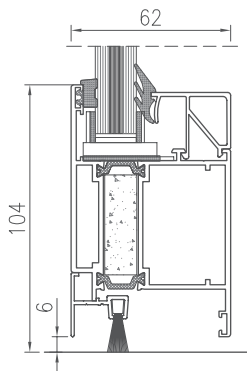
CROSS SECTION THROUGH TM 62EI S30 WINDOW



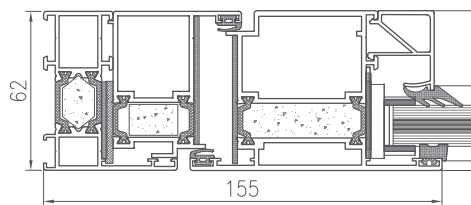
CROSS SECTION THROUGH TM 62EI S30 WINDOW



CROSS SECTION THROUGH TM 62EI - THRESHOLDLESS SOLUTION



CROSS SECTION THROUGH TM 62EI DOOR



TECHNICAL PARAMETERS - TM 62EI

		WALLS	DOORS
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 30 ÷ 40 dB	Rw = 30 ÷ 40 dB
	Air permeability EN 12207	Class 4	Class 2
	Water tightness EN 12208	Class RE 750 (750 Pa)	Class 5A
SAFETY	Wind load resistance EN 12210	-	Class C1 (400 Pa)
	Fire resistance EN 13501-2	Class EI 30	Class EI 30
	Resistance to cyclic opening/closing EN 16034	-	Class 5
	Classification in terms of fire resistance EN 13501-2	Sa S200	Sa S200
	Impact resistance to soft, heavy and hard body EN 1192	Class 3	Class 3

TECHNICAL PROPERTIES - TM 62EI

	DOORS	FIXED WINDOWS
Structural depth	62 mm	62 mm
Infill thickness	15 ÷ 36 mm	15 ÷ 36 mm
Maximum dimensions L x H - fire protection single-leaf door	500 ÷ 1360 mm x 600 mm x 2590 mm	500 ÷ 1360 mm x 600 mm x 2590 mm
Maximum dimensions L x H - fire protection double-leaf door	1000 ÷ 2307 mm x 600 mm x 2590 mm	1000 ÷ 2307 mm x 600 mm x 2590 mm
Maximum height of fire protection wall	3000 mm	3000 mm

acc. to the NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2022/2180 ver. 1

TM
90EI

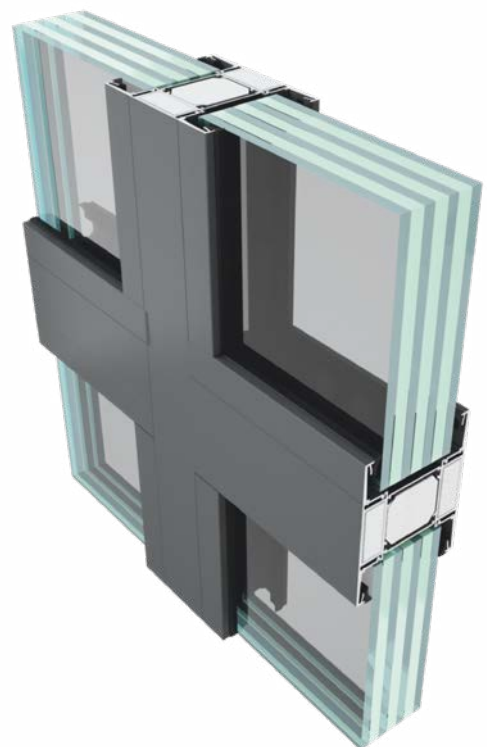
YAWAL FIRE BLOCK 120 TM 90EI
FIRE PROTECTION WALLS

Fire Block 120

long-lasting fire protection

TM 90EI - SYSTEM FEATURES

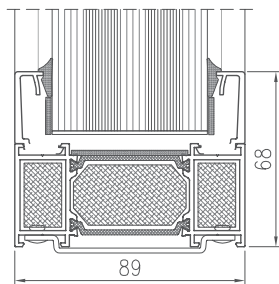
- wide range of application as indoors and outdoors partitions,
- materials classified as NRO (fire retardants),
- possibility of installing TM 75EI doors in the wall,
- possibility of using non-transparent infills of large dimensions.
- YAWAL FIRE BLOCK 120 TM 90 EI allows for manufacturing a wide selection of fire protection partitions with fire resistance class EI 120.
- It is compatible with TM 75 EI system,
- TM 90 EI system meets the requirement of current Technical Approval AT-15-8955/2016. Maximum dimensions of fire protection wall that may be constructed using this system are: 4000 mm; width: 5240 mm.



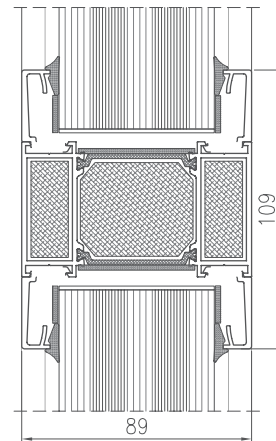
See the product
on the website

Picture: Neophilology - Silesian University, Sosnowiec
Design: Architectonic Office Taczewski, Katowice
Aluminium manufacturer: ACARI Sp. z o.o., Kraków

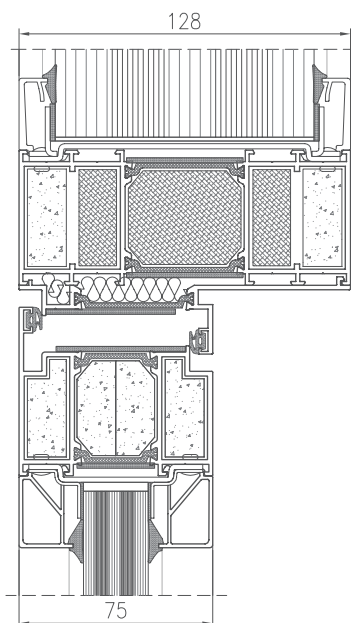
CROSS SECTION THROUGH TM 90EI 120 FIRE BLOCK WALL



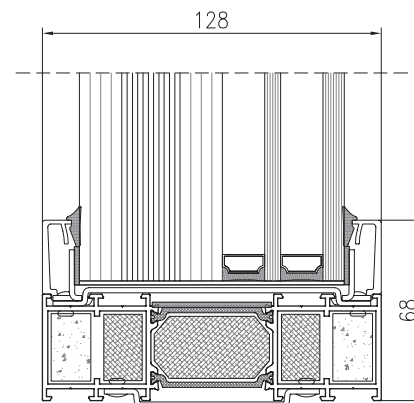
CROSS SECTION THROUGH TM 90EI 120 WINDOW



CROSS SECTION THROUGH CONNECTION OF TM 90EI 120 FIRE BLOCK WALL WITH TM 75EI SYSTEM DOOR



CROSS SECTION THROUGH TM 90EI 120 WINDOW



TECHNICAL PARAMETERS - TM 90EI

		VNÚT. STENY	VONK. STENY
COMFORT	Acoustic insulation EN ISO 140-3	-	Rw = 43 dB
	Air permeability EN 12207	-	Class A4
	Water tightness EN 12208	-	Class R7
SAFETY	Fire resistance EN 13501-2	-	Class 120
	Impact resistance to soft, heavy body	IVc acc. to EAD 210005-00-0505	Class I5/E5 acc. to EN 14019

TECHNICAL PROPERTIES - TM 90EI

	FIXED WINDOWS
Structural depth	88,8 / 120 mm
Infill thickness	50 ÷ 100 mm
Maximum height of fire protection wall	3000 mm

acc. to the NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2021/2010 ver. 1

FA
50N

FACADE SYSTEM



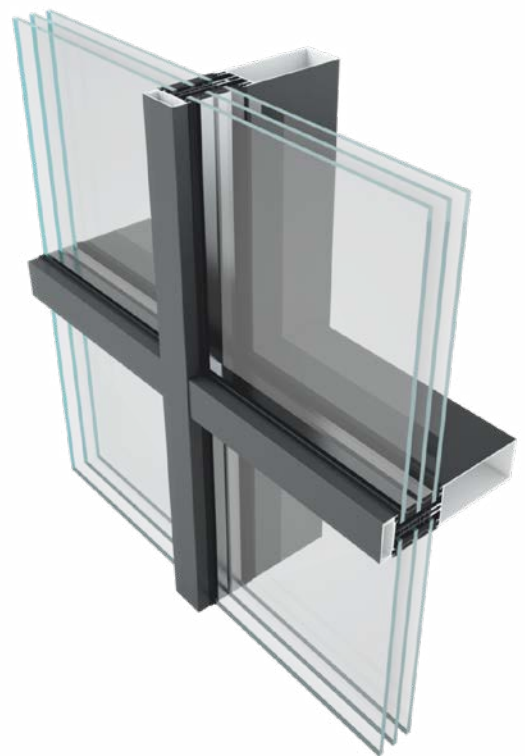
complex solutions

FA 50N – SYSTEM FEATURES

- allows for creating constructions of various shapes and dimensions, in accordance with the architect's vision,
- complies with valid standards concerning water tightness, thermal insulation and fire resistance,
- wide variety of masking strips allows for diversified final appearance of curtain walls,
- possibility of bending profiles,
- possibility of creating many varieties with diversified parameters,,
- possibility of using photovoltaic cells,
- thanks to a wide range of solutions included in the system, it is possible to freely shape the façade in terms of geometric and colour. The product has also been tested in one of the European research institutes,
- FA 50N system is classified as one of best curtain wall system available on the market, considering thermal and acoustic insulation, water tightness and wind load resistance.



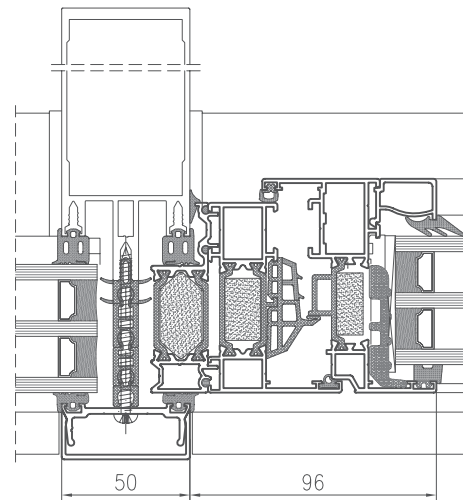
See the product
on the website



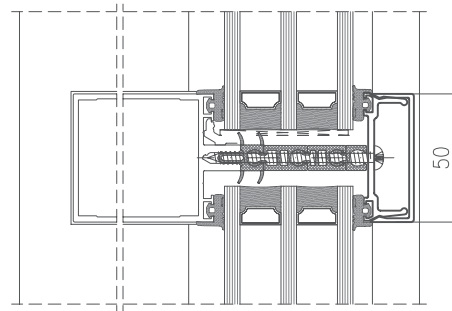
Pictures: CELEBRO, Warsaw
Design: Kuryłowicz & Associates Sp z o.o., Warsaw,
Aluminium manufacturer: Alures Sp. z o.o., Boguchwała



CROSS SECTION THROUGH FA 50N MULLION WITH TM 77HI WINDOW



CROSS SECTION THROUGH FA 50N TRANSOM



TECHNICAL PARAMETERS - FA 50N

ENERGY	Thermal insulation EN 10077-2	$U_f = 1,14 \div 1,88 \text{ W/m}^2\text{K}$
COMFORT	Acoustic insulation EN ISO 140-3	$R_w = 35 \div 53 \text{ dB}$
	Air permeability EN 12207	AE 1650
	Water tightness EN 12208	RE 2850
SAFETY	Wind load resistance EN 12210	2400 Pa
	Anti-theft protection EN 1627	RC2, RC3, RC4
	Impact resistance EN 14019	I5, E5

TECHNICAL PROPERTIES - FA 50N

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	50 mm
Minimum mullion depth	34 mm
Maximum mullion depth	350 mm
Glazing thickness	$6 \div 64 \text{ mm}$
Glazing method	Glazing with pressure element

FA
50N
HI

FACADE SYSTEM

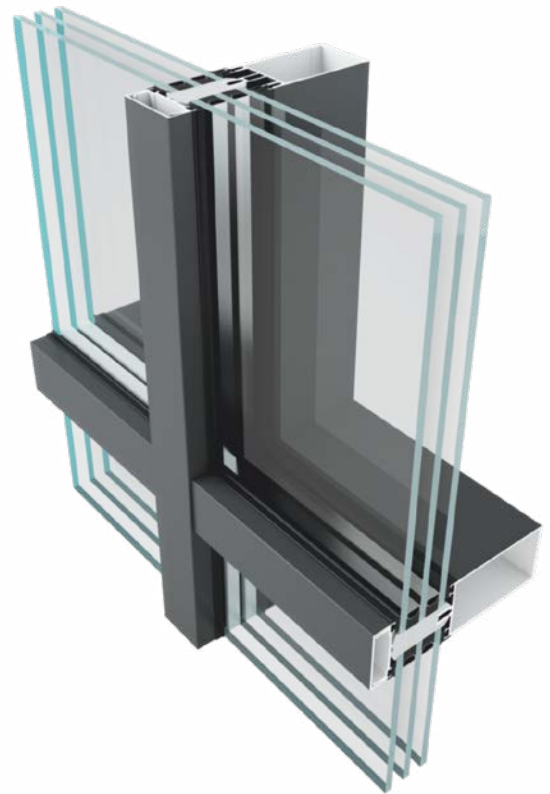
high thermal insulation properties

FA 50N HI – SYSTEM FEATURES

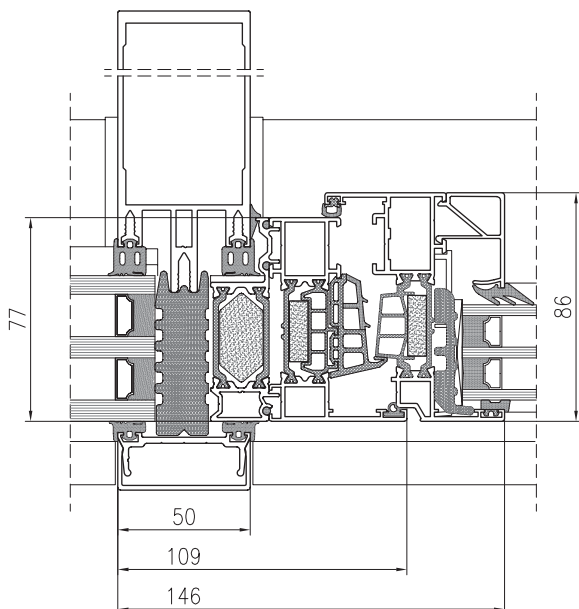
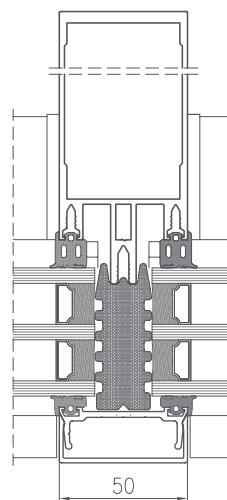
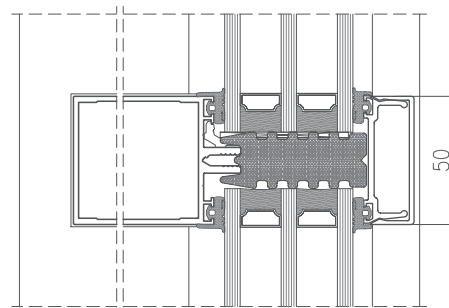
- possibility of creating constructions of various shapes (turns, bends, polygonal shapes),
- complies with all thermal, acoustic and water tightness requirements,
- wide variety of masking strips allows for diversified final appearance of curtain walls,
- possibility of bending profiles, which makes it possible to create a variety of shapes and structure configuration adjusted to individual design requirements,
- thanks to excellent thermal insulation, the system contributes to the reduction of heating costs in the building by minimizing heat losses and ensuring energy efficiency,
- the solution has one of best parameters amongst this class of products on the market,
- possibility of connecting with all YAWAL systems.



See the product
on the website



Pictures: HTM Research and Development Centre, Gliwice
Design: ZALEWSKI ARCHITECTURE GROUP KRZYSZTOF ZALEWSKI, Gliwice
Aluminium manufacturer: APS-SYSTEM, Częstochowa

CROSS SECTION THROUGH
 FA 50N HI MULLION WITH TM WINDOW

 CROSS SECTION THROUGH
 FA 50N HI MULLION

 CROSS SECTION THROUGH
 FA 50N HI TRANSOM


TECHNICAL PARAMETERS - FA 50N HI

ENERGY	Thermal insulation EN 10077-2	$U_f = 0,65 \div 1,20 \text{ W/m}^2\text{K}$
COMFORT	Acoustic insulation EN ISO 140-3	$R_w = 35 \div 53 \text{ dB}$
	Air permeability EN 12207	AE 1650
	Water tightness EN 12208	RE 2850
SAFETY	Wind load resistance EN 12210	2400 Pa
	Anti-theft protection EN 1627	RC2, RC3, RC4
	Impact resistance EN 14019	I5, E5

TECHNICAL PROPERTIES - FA 50N HI

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	20 mm
Minimum mullion depth	34 mm
Maximum mullion depth	350 mm
Glazing thickness	$25 \div 64 \text{ mm}$
Glazing method	Glazing with pressure element

FA
50N
SL

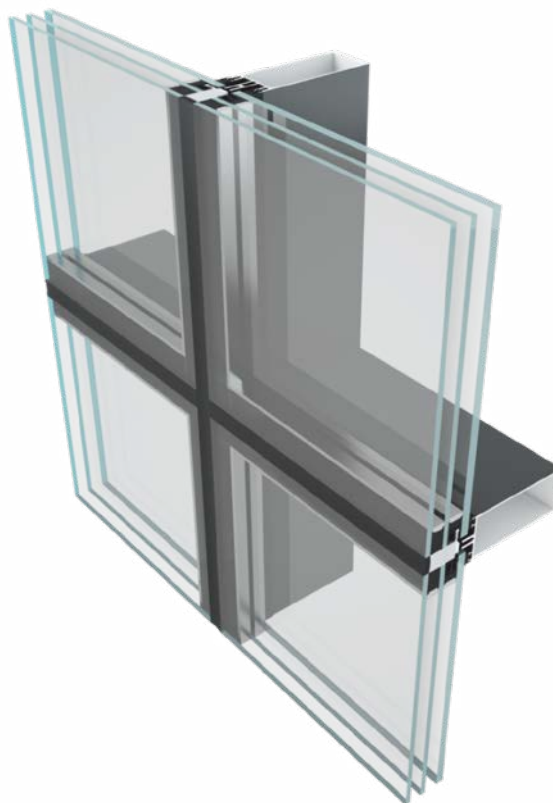
FACADE SYSTEM



high tightness

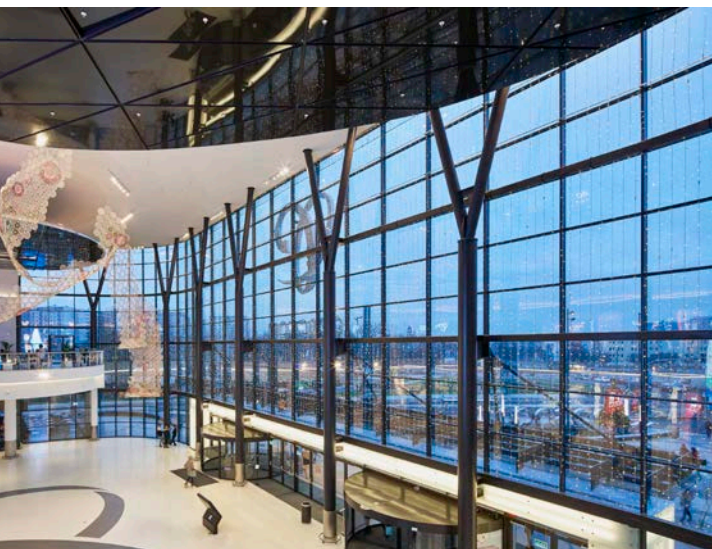
FA 50N SL - SYSTEM FEATURES

- glass façade without external slats,
- possibility of creating constructions of various shapes (turns, bends, polygonal shapes),
- possibility of bending profiles,
- excellent tightness and aesthetic appearance,
- quick and easy assembly,
- possibility of installing tilt or parallel sliding windows next to each other, the windows are opened independently,
- possibility of connecting with all YAWAL systems.

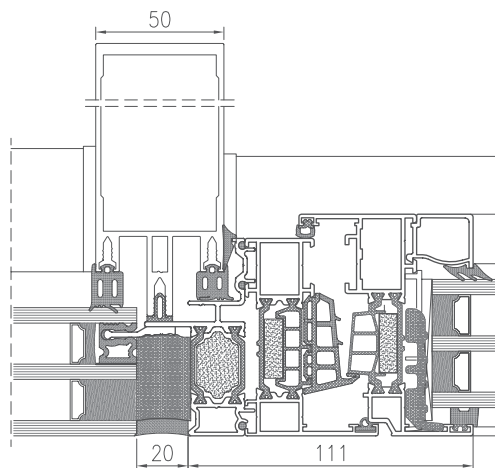


See the product
on the website

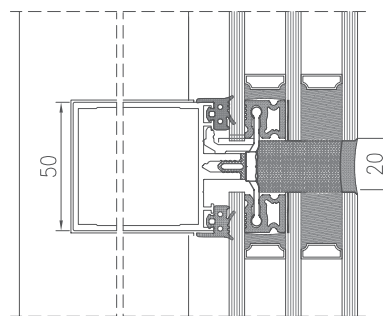
Pictures: POSNANIA, Poznań
Design: B.E.G. INGENIERIE Polska Sp. z o.o.; Blue Architektura Sp. z o.o.; RTKL UK Ltd; WB PROJEKT,
Aluminium manufacturer: DEFOR S.A.



CROSS SECTION THROUGH FA 50N SL
MULLION WITH TM 77HI WINDOW



CROSS SECTION THROUGH
FA 50N SL TRANSOM



TECHNICAL PARAMETERS - FA 50N SL

ENERGY	Thermal insulation EN 10077-2	$U_f = 0,9 \div 1,92 \text{ W/m}^2\text{K}$
COMFORT	Acoustic insulation EN ISO 140-3	$R_w = 34 \div 53 \text{ dB}$
	Air permeability EN 12207	AE 1650
	Water tightness EN 12208	RE 2850
SAFETY	Wind load resistance EN 12210	2400 Pa
	Anti-theft protection EN 1627	RC2, RC3, RC4
	Impact resistance EN 14019	I5, E5

TECHNICAL PROPERTIES - FA 50N SL

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	50 mm
Minimum mullion depth	42 mm
Maximum mullion depth	350 mm
Glazing thickness	$6 \div 64 \text{ mm}$
Glazing method	Glazing with invisible mechanical fixing element and silicone joint

FA
50N
HL/VL

FACADE SYSTEM

individual character

FA 50N HL/VL – SYSTEM FEATURES

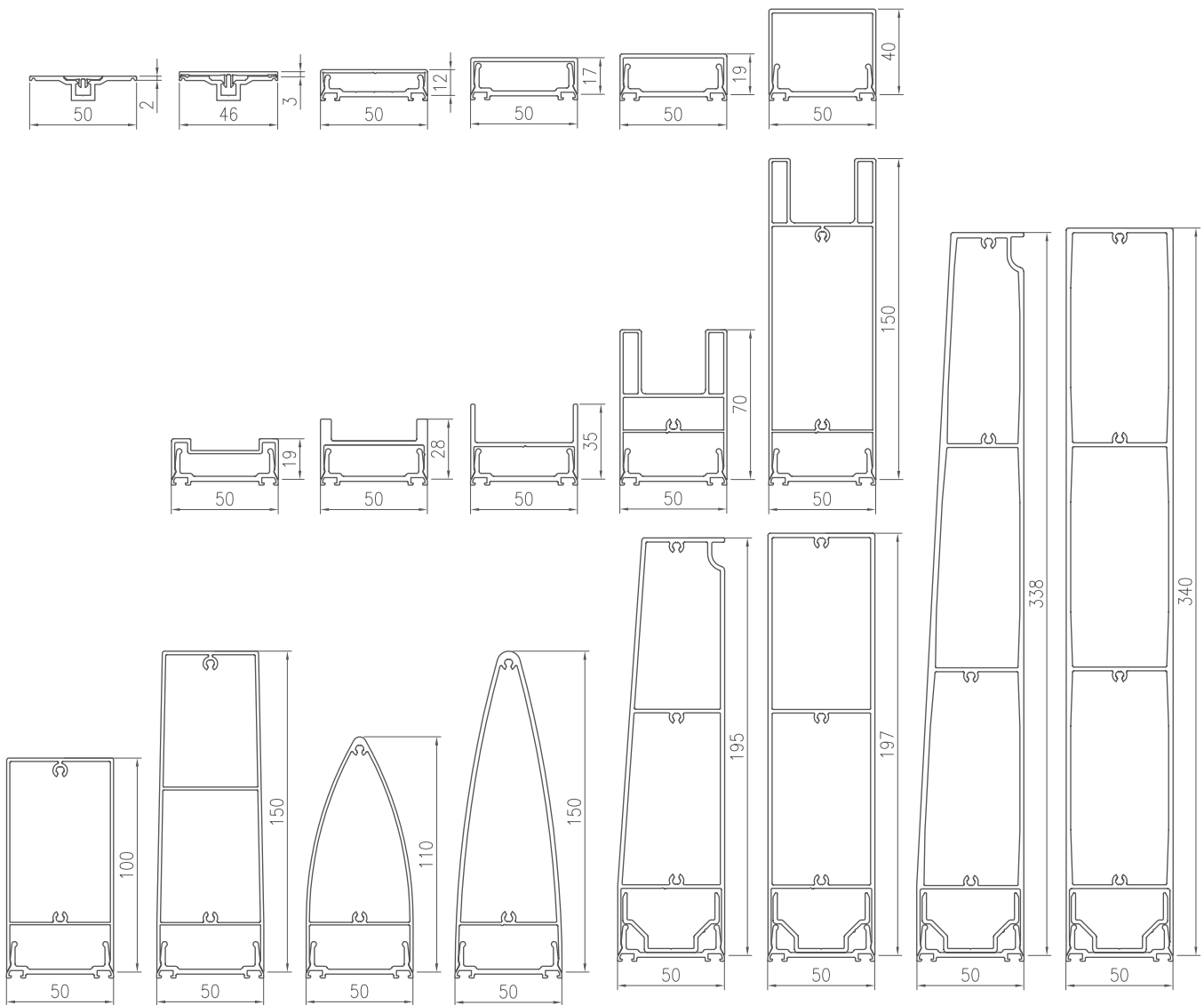
- possibility of creating visually attractive structures,
- high parameters of water tightness and wind load resistance,
- visual effect of emphasising horizontal and vertical division lines,
- possibility of using tilt windows that do not interfere with façade appearance,
- possibility of connecting with all YAWAL systems.



See the product
on the website

Picture: University of Economics, Wrocław
Design: ARCHIMEDIA Architects and Engineers,
Aluminium manufacturer: Trasko-Inwest Sp. z o.o.

MASKING STRIP



TECHNICAL PARAMETERS - FA 50N HL/VL

ENERGY	Thermal insulation EN 10077-2	$U_f = 0,65 \div 1,20 \text{ W/m}^2\text{K}$
COMFORT	Acoustic insulation EN ISO 140-3	$R_w = 35 \div 53 \text{ dB}$
	Air permeability EN 12207	AE 1650
	Water tightness EN 12208	RE 2850
SAFETY	Wind load resistance EN 12210	2400 Pa
	Anti-theft protection EN 1627	RC2, RC3, RC4
	Impact resistance EN 14019	I5, E5

TECHNICAL PROPERTIES - FA 50N HL/VL

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	50 mm
Minimum mullion depth	34 mm
Maximum mullion depth	350 mm
Glazing thickness	$6 \div 64 \text{ mm}$
Glazing method	Glazing with pressure element

FA
50N
SW

FACADE SYSTEM

effective airing

FA 50N SW – SYSTEM FEATURES

- visual effect of an even surface affects positively influencing aesthetics of the building,
- compatible with „intelligent house” concept,
- possibility of efficient ventilation without interrupting the homogeneous appearance of the façade due to using sliding windows,
- possibility of natural ventilation, uniform inlet and outlet of air,
- no draught and reduction of energy costs,
- possibility of installing automatic opening/closing actuators.



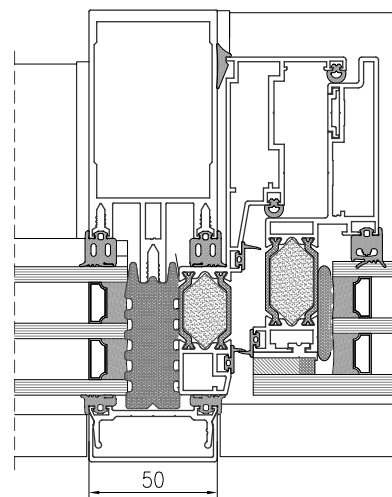
See the product
on the website

Pictures: Łużycka Plus, Gdynia
Design: Aedas CE, Warsaw
Aluminium manufacturer: Al-Bud Sp. z o.o., Wołomin

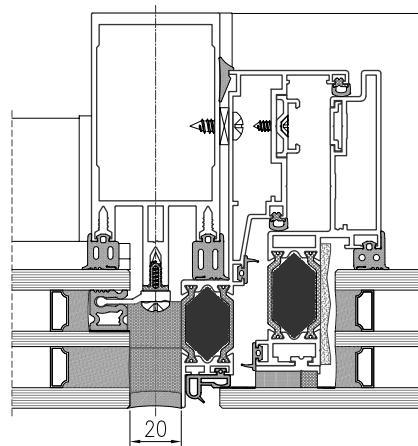




CROSS SECTION THROUGH FA 50N HI MULLION WITH FA 50N SW WINDOW



CROSS SECTION THROUGH FA 50N SL MULLION WITH FA 50N SW WINDOW



TECHNICAL PARAMETERS – FA 50N SW

		parallel sliding	tilt at the bottom
ENERGY	Thermal insulation EN 10077-2	Uf from 1,3 W/m ² K	Uf from 1,3 W/m ² K
COMFORT	Air permeability EN 12207	Class 4	Class 3
	Water tightness EN 12208	E1500 (1500 Pa)	E2100 (2100 Pa)
SAFETY	Wind load resistance EN 12210	1600 Pa	1600 Pa
	Impact resistance EN 14019	Class 5	Class 4

TECHNICAL PROPERTIES – FA 50N SW

	parallel sliding	tilt at the bottom
Glazing thickness	28 ÷ 32; 46 ÷ 58 mm	28 ÷ 32; 46 ÷ 58 mm
Glazing method	Glazing with invisible fixing element Glazing with structural bonding	Glazing with invisible fixing element Glazing with structural bonding
Maximum weight	220 kg	180 kg
Maximum dimension (width x height)	2000 x 3000 mm	1700 x 2650 mm/ 2650 x 1700mm

FA
50N
INV

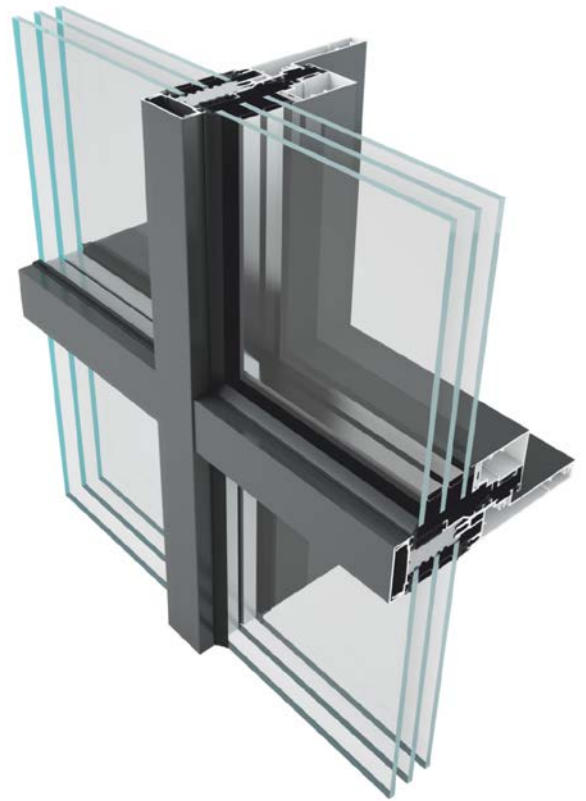
FACADE SYSTEM



hidden sash effect

FA 50N INV - SYSTEM FEATURES

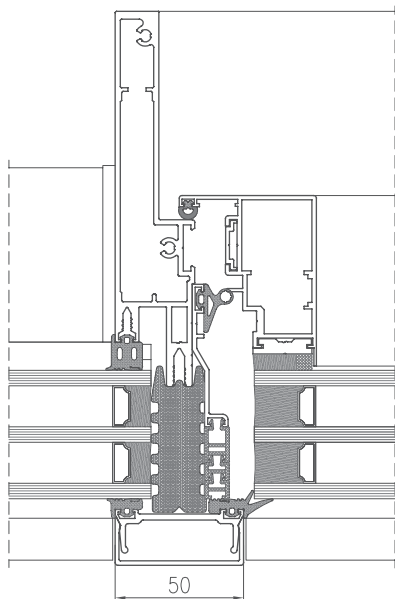
- possibility of glazing with single-chamber and double chamber units,
- a hidden sash effect from the outside of curtain wall,
- high thermal insulation properties,
- possibility of assembly in any type of Yawal's mullion-transom façades,
- the system allows constructing inward opening windows, curtain wall with turn and tilt, tilt and turn, turn or tilt function
- possibility of connecting with all YAWAL systems.



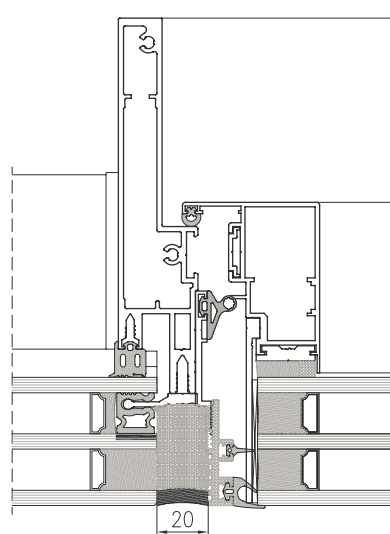
See the product
on the website

Pictures: OFF Piotrkowska Center, Łódź
Design: Architectonic Office NOW Biuro Architektoniczne Sp. z o.o.,
Aluminium manufacturer: OLI Sp. z o.o.

CROSS SECTION THROUGH FA 50N HI MULLION WITH FA 50N INV WINDOW



CROSS SECTION THROUGH FA 50N SL MULLION WITH FA 50N INV WINDOW



TECHNICAL PARAMETERS – FA 50N INV

ENERGY	Thermal insulation EN 10077-2	$U_f = 0,67 \div 1,95 \text{ W/m}^2\text{K}$
COMFORT	Air permeability EN 12207	Class 4
	Water tightness EN 12208	E1650
SAFETY	Wind load resistance EN 12210	1600 Pa
	Impact resistance EN 14019	Class 4/Class 5

TECHNICAL PROPERTIES – FA 50N INV

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	10 ÷ 81,4 mm
Minimum mullion depth	120 mm
Maximum mullion depth	186,3 mm
Glazing thickness	28 ÷ 58 mm
Glazing method	Glazing with pressure element Glazing with invisible mechanical fixing element and silicone joint Glazing with structural adhesive (windows)lepidlom (okná)
Opening elements	structural sash: turn and tilt, tilt and turn, turn, tilt
Maximum weight of turn and tilt, tilt and turn, turn sash	150 kg
Maximum height of turn and tilt, tilt and turn, turn sash	2700 mm
Maximum weight of tilt sash	120 kg
Maximum height of tilt sash	2200 mm

FA
50N
PV

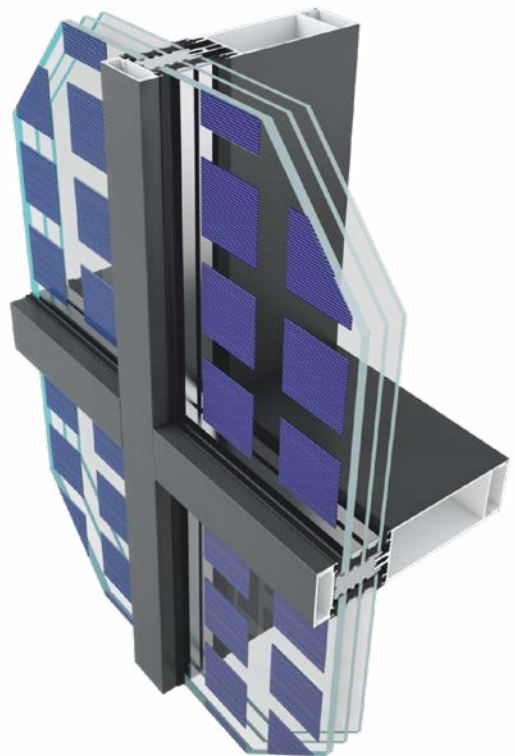
FACADE SYSTEM

BMZ
THE INNOVATION GROUP

energy efficiency

FA 50N PV – SYSTEM FEATURES

- invisible cabling,
- excellent thermal insulation,
- energy efficiency is ensured by excellent thermal insulation and the possibility of using photovoltaic cells,
- allows the creation of light curtain walls, roofing and other spatial structures using glass equipped with photovoltaic cells,
- possibility of covering the cable chamber with a special set of mullions, transoms and plugs, and the use of a special glass construction for obtaining electricity,
- possibility of assembly with any of Yawal façade systems.

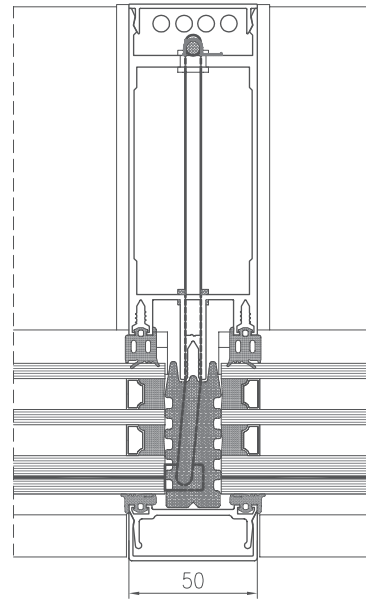


See the product
on the website

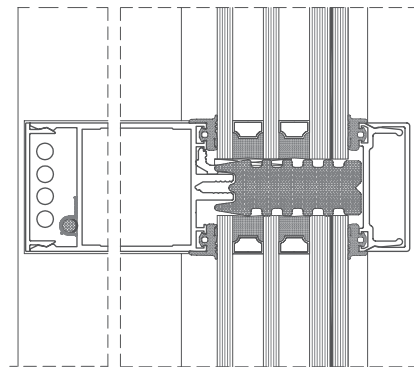
Picture: BMZ POLAND Sp. z o.o., Gliwice
Design: BAUREN Renke Piotr
Aluminium manufacturer: SBL-Żelbet Sp. z o.o.



CROSS SECTION THROUGH FA 50N
50N PV MULLIONM - POSSIBILITY
TO LEAD ELECTRIC CABLES



CROSS SECTION THROUGH
FA 50N PV TRANSOM



TECHNICAL PARAMETERS - FA 50N PV

ENERGY	Thermal insulation EN 10077-2	$U_f = 0,65 \div 1,92 \text{ W/m}^2\text{K}$
COMFORT	Acoustic insulation EN ISO 140-3	$R_w = 34 \div 53 \text{ dB}$
	Air permeability EN 12207	AE 1650
	Water tightness EN 12208	RE 2850
SAFETY	Wind load resistance EN 12210	2400 Pa
	Impact resistance EN 14019	I5, E5

TECHNICAL PROPERTIES - FA 50N PV

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	50 mm
Maximum mullion depth	146,3 mm
Maximum mullion depth	146,3 mm
Glazing thickness	6 ÷ 64 mm

Glazing method	Glazing with pressure element Glazing with invisible mechanical fixing element and silicone joint
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FA
50N
EI

MULLION AND TRANSOM FIRE PROTECTION FACADE

fire protection system

FA 50N EI - SYSTEM FEATURES

- possibility of creating curtain walls with various surface refractions,
- complies with stringent fire protection standards,
- possibility of combining with fire protection systems Yawal TM 75EI and TM 62EI.

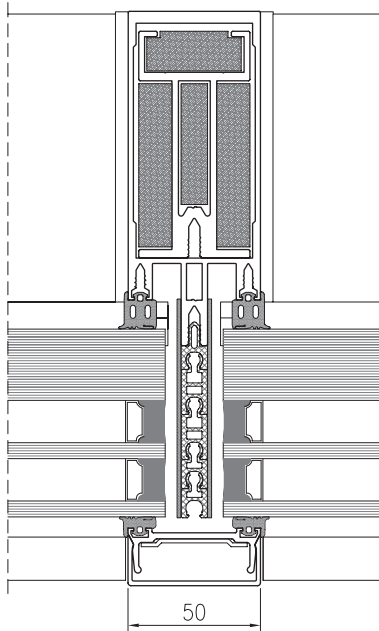


See the product
on the website

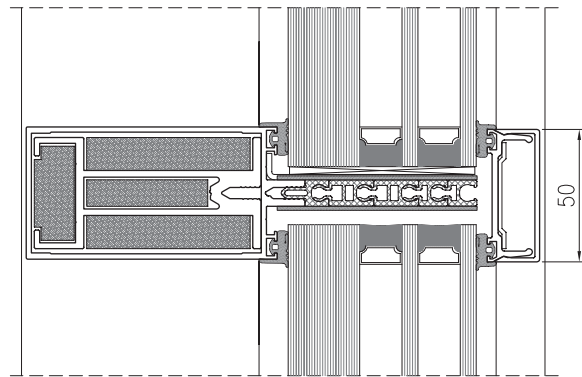


Pictures: Termy Tarnowskie, Tarnowo Podgórne
Design: Archas Design Maciej Zuber
Aluminium manufacturer: USP Maciej Gajdziński, Poznań

CROSS SECTION THROUGH
FA 50N EI60 MULLION



CROSS SECTION THROUGH
FA 50N EI60 TRANSOM



TECHNICAL PARAMETERS - FA 50N EI

ENERGY	Thermal insulation EN 10077-2	Uf = from 2,0 W/m ² K
COMFORT	Acoustic insulation EN ISO 140-3	Rw = 35 ÷ 53 dB
	Air permeability EN 12207	AE 1500
	Water tightness EN 12208	RE 1800
SAFETY	Wind load resistance EN 12210	2400 Pa
	Anti-theft protection EN 1627	RC2, RC3, RC4
	Impact resistance EN 14019	I5, E5
	Fire resistance	EI 30, EI 60

TECHNICAL PROPERTIES - FA 50N EI

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	50 mm
Minimum mullion depth	106,3 mm
Maximum mullion depth	288,3 mm
Glazing thickness	16 ÷ 74 mm
Glazing method	Glazing with pressure element

FA
50N
EI SL

FACADE SYSTEM

complex solutions

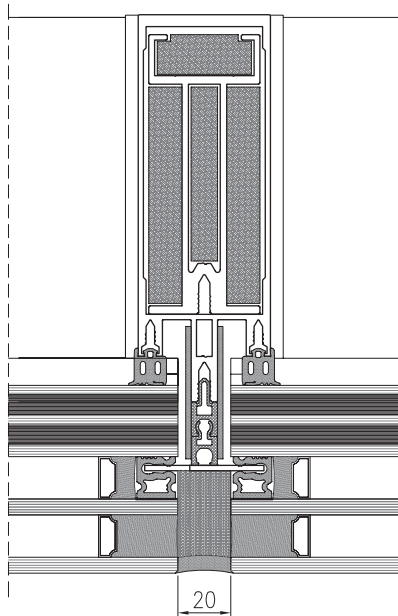
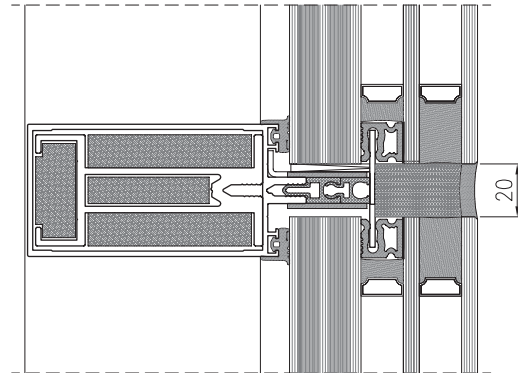
FA 50N EI SL – SYSTEM FEATURES

- possibility of maintaining the aesthetics of the façade without any visible deviation from FA 50N SL system without fire resistance,
- the system allows the construction of suspended or filling walls with fire resistance class EI 60,
- the system allows the construction of both flat and broken walls,
- possibility of installing fire protection doors in the façade.



See the product
on the website

Pictures: Temida Office, Poznań
Design: Archikwadrat Sp. z o.o., Poznań
Aluminium manufacturer: Lindhorst Sp. z o.o. Spółka Komandytowa, Poznań

CROSS SECTION THROUGH
 FA 50N SL EI60 MULLION

 CROSS SECTION THROUGH
 FA 50N SL EI60 TRANSOM


TECHNICAL PARAMETERS – FA 50N EI SL

ENERGY	Thermal insulation EN 10077-2	$U_f = \text{from } 1,54 \text{ W/m}^2\text{K}$
COMFORT	Acoustic insulation EN ISO 140-3	$R_w = 34 \div 53 \text{ dB}$
	Air permeability EN 12207	AE 1200
	Water tightness EN 12208	RE 1200
SAFETY	Wind load resistance EN 12210	1700 Pa
	Anti-theft protection EN 1627	RC2, RC3, RC4
	Impact resistance EN 14019	I4, E4
	Fire resistance	EI 60

TECHNICAL PROPERTIES – FA 50N EI SL

Minimum visible width (view from inside)	50 mm
Minimum visible width (view with outside)	50 mm
Minimum mullion depth	106,3 mm
Maximum mullion depth	288,3 mm
Glazing thickness	14 ÷ 60 mm
Glazing method	Glazing with invisible mechanical fixing element and silicone joint

PBI
50N

WINDOW AND DOOR SYSTEM
WITHOUT THERMAL INSULATION

great selection of profiles

PBI 50N - SYSTEM FEATURES

- the system can be used to construct partitions and other internal constructions, such as: swing doors, service windows, non-supporting partition walls, display windows and boxes that do not require thermal insulation,
- possibility of creating large-dimensioned constructions due to wide selection of profiles (including reinforced mullions),
- possibility of constructing outwards and inwards opening doors, all-glass, single-leaf and double-leaf doors,
- possibility of manufacturing smoke-proof constructions,
- possibility of creating swing doors and service windows,
- possibility of creating arched constructions,
- possibility of setting the walls at any angle,
- possibility of creating all-glass structures,
- profile depth (50 mm) makes it one of the most durable on the market,
- it is possible to connect it with all YAWAL systems.

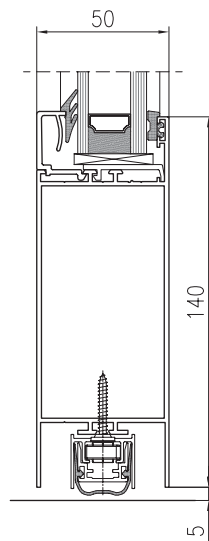


See the product
on the website



Picture: PGE Turów Arena in Zgorzelec
Design: Archimedia, Poznań
Aluminium manufacturer: APS System Sp. j., Częstochowa

CROSS SECTION THROUGH PBI 50N DOOR



TECHNICAL PARAMETERS – PBI 50N

SAFETY	Operation force EN 12046	Class 2
	Mechanical life EN 12400	Class 5
	Smoke proofness EN 13501-2	Class Sa S200
	Static torsion EN 1192	Class 3 (300 N)
	Static load EN 1192	Class 3 (800N)
	Impact resistance to soft and heavy body EN 11992	Class 3 (120 J)
	Impact resistance to hard body EN 11992	Class 3 (5 J)
	Flame spreading EN 11992	Class 3 (5 J)

TECHNICAL PROPERTIES – PBI 50N

		Service window	Doors of window profiles	Swing door	Standard door	Top-hung door
Structural thickness of frame	50 mm	50 mm	50 mm	50 mm	50 mm	50 mm
Leaf structural thickness	57 mm	21,8/45,5 mm	57 mm	50 mm	50 mm	50 mm
Glazing bead height	20/22 mm	20 mm	20/22 mm	20/22 mm	20/22 mm	20/22 mm
Infill thickness	6 ÷ 43 mm	4 ÷ 6,4 mm	4 ÷ 43 mm	4 ÷ 43 mm	4 ÷ 43 mm	6 ÷ 34 mm
Maximum dimensions L x H – internal doors single-leaf	500 ÷ 1400 mm x 500 ÷ 2500 mm					
Maximum dimensions L x H – double-leaf internal doors	1000 ÷ 2400 mm x 500 ÷ 2500 mm					

PBI
50N

WINDOW AND DOOR SYSTEM
WITHOUT THERMAL INSULATION

Glass

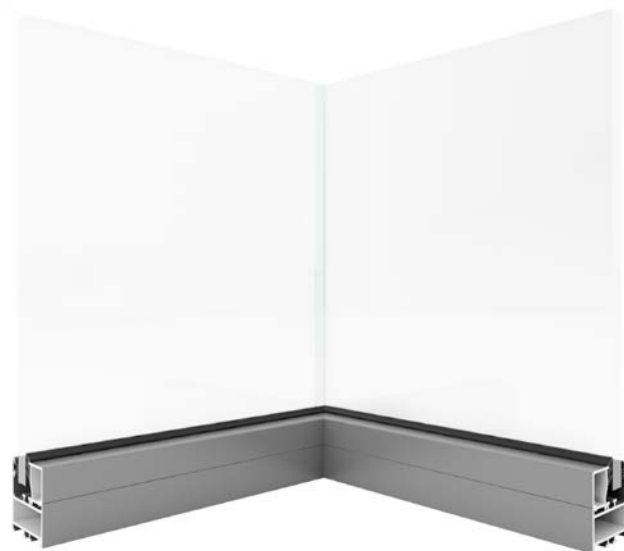
minimalistic design

PBI 50N GLASS - SYSTEM FEATURES

- possibility of using PBI 50N Glass profile system without without thermal insulation to create light walls and inside partitions of high performance and aesthetic properties,
- no crosspieces which divide the glazing,
- simple construction in prefabrication,
- possibility of using various contour profiles,
- maximum structure height is 3.1mm
- the system is adjusted to fittings of CDA company,
- easy assembly,
- possibility of installing of transparent infills of thickness 12 mm,
- possibility of creating all-glass structures.

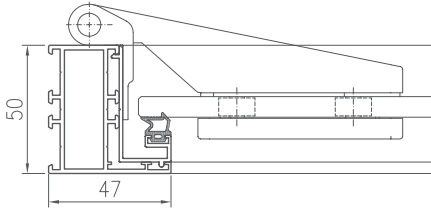


See the product
on the website

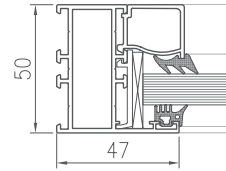


Picture: Examples of the system use

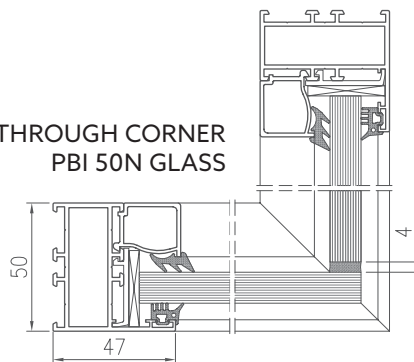
CROSS SECTION THROUGH ALL-GLASS DOOR PBI 50N GLASS



CROSS SECTION THROUGH PBI 50N GLASS FRAME



CROSS SECTION THROUGH CORNER PBI 50N GLASS



TECHNICAL PARAMETERS - PBI 50N GLASS DOORS

SAFETY	Operation force EN 12046	Class 2
	Resistance to numerous closing and opening EN 12400	Class 6
	Static torsion EN 1192 EN 1192	Class 2 (250 N)
	Vertical static load EN 1192	Class 2 (600 N)
	Impact resistance to soft and heavy body EN 11992	Class 2 (60 J)

TECHNICAL PARAMETERS - PBI 50N GLASS STENY

SAFETY	Impact resistance to soft and heavy body EAD 210005-00-0505	Ivc
	Flame spreading	NRO

TECHNICAL PROPERTIES - PBI 50N GLASS

Maximum dimensions L x H - single-leaf doors	1195 x 2189 mm
Maximum dimensions L x H - double-leaf doors	2390 x 2189 mm
Maximum height of walls	3100 mm

PBI
50N

WINDOW SYSTEM
WITHOUT THERMAL INSULATION

Service window

comfort and aesthetics

PBI 50N SERVICE WINDOW - SYSTEM FEATURES

We would like to recommend you the modern aluminium joinery of PBI 50N system allowing designing of internal constructions that do not require thermal insulation.

The system is intended for constructing light walls and internal partitions characterised by great aesthetic and performance. Use of advanced technology and high-quality materials makes the product be characterised by durability, stability and high mechanical resistance.



See the product
on the website

Picture: Examples of the system use

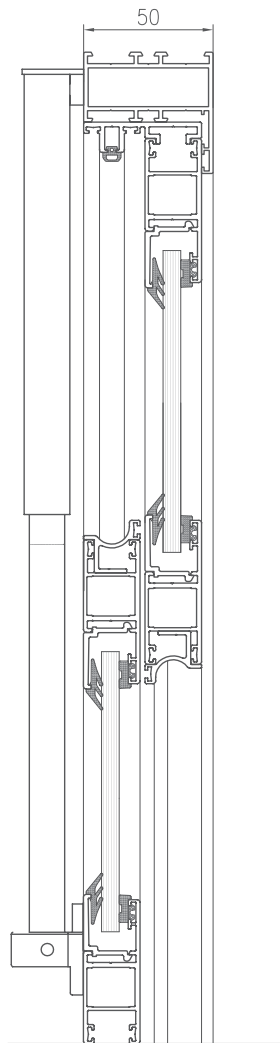


As part of the PBI 50N system, we offer you one of our additional solutions – service window. A perfect complement to the architecture of industrial facilities, public buildings and residential buildings. The presented window type can be slid in horizontal and vertical plane.

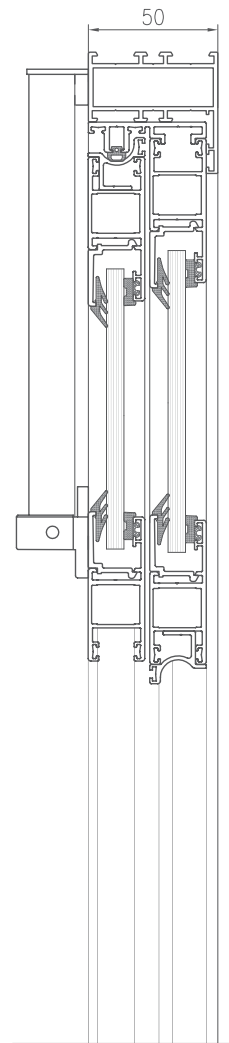
The aesthetic value of the construction is emphasised by the high quality of surface finish, as the profiles are additionally subject to anodising or powder coating process. Modern and minimalistic form of the system and great selection of colours – RAL palette, structural colours and wood-like colours - allow creating individual solutions suitable for any type of architecture. Similarly to other constructions, this system is compatible with other YAWAL system.

The system has a Technical Approval no. AT-15-6924/2012 and certificates, all to guarantee full satisfaction of use.

CROSS SECTION THROUGH A CLOSE
PBI 50N SERVICE WINDOW



CROSS SECTION THROUGH AN OPEN
PBI 50N SERVICE WINDOW



TECHNICAL PARAMETERS – PBI 50N SERVICE WINDOW

Frame structural depth	50 mm
Sash structural thickness	21,8 mm
Infill thickness	4 ÷ 6,4 mm
Movable sash weight – for sash without counterweight	max. 8 kg



VERTILINE - SYSTEM FEATURES

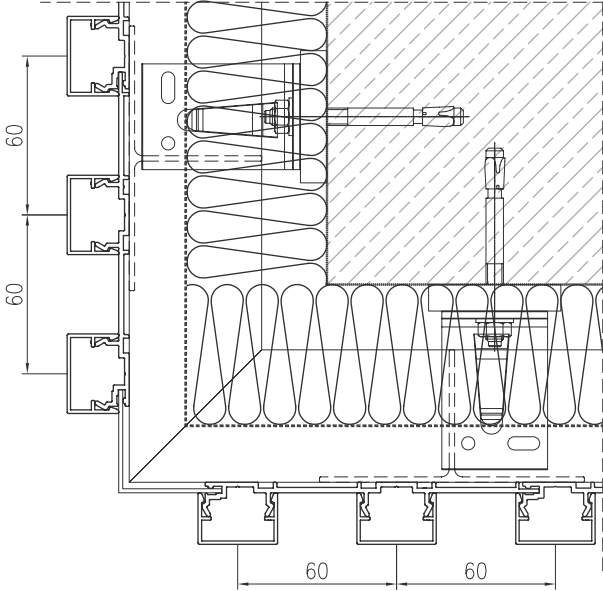
- possibility of assembly on the façade of the building or inside the rooms gives flexibility in the use of the system,
- unlimited colour and decorative possibilities, allowing adjustment to individual preferences and architectural style,
- the system ensures visual consistency on the façades, creating a modern design and a harmonious appearance of the building,
- aluminium slats are durable and resistant, which translates into long-term use and resistance to weather conditions,
- it does not require repainting, which reduces costs of maintenance,
- the system is safe and ecological, meeting the requirements for construction safety and environmental protection.



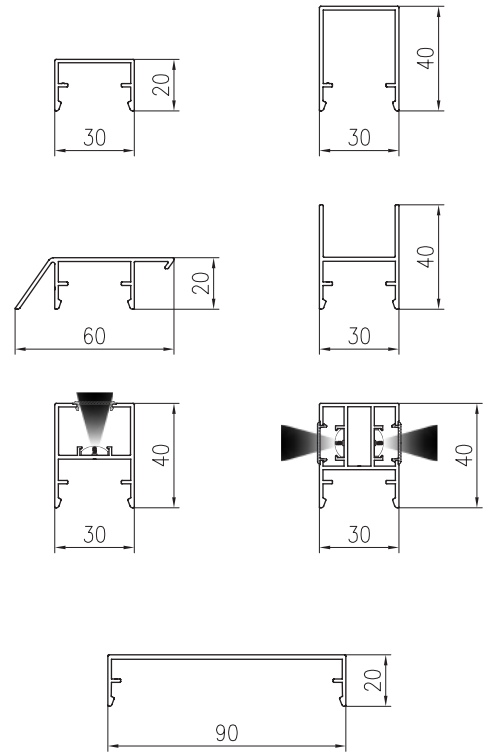
See the product
on the website

Picture: Examples of the system use

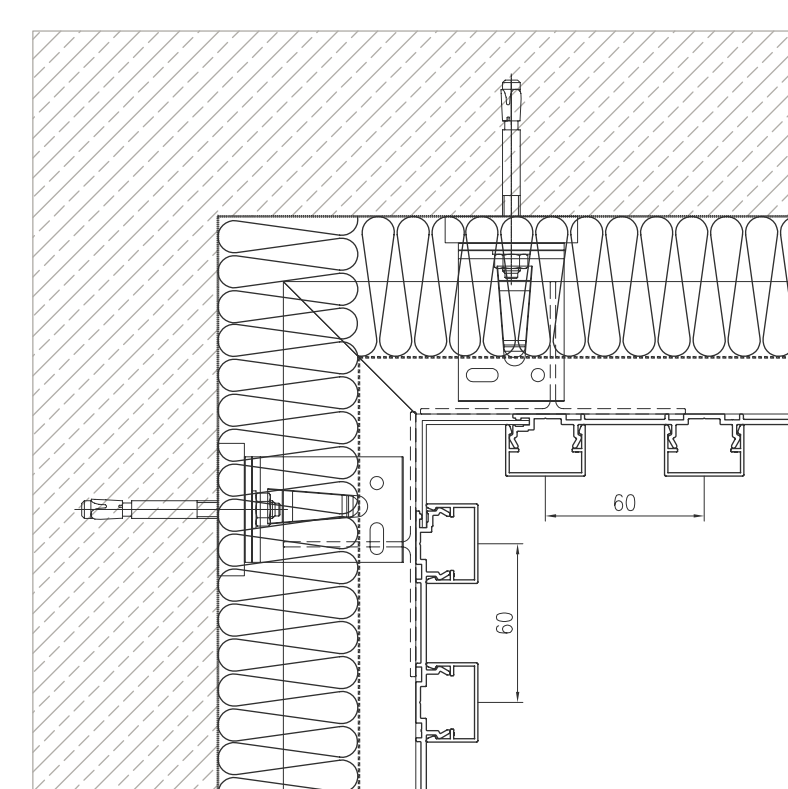
CROSS SECTION THROUGH
VERTILINE CLADDING



CROSS SECTION THROUGH MASKING
CLIPS OF THE VERTILINE SYSTEM



CROSS SECTION THROUGH
VERTILINE CLADDING



PF
40

PORTFENETR SYSTEM



safety without compromise

PF 40 - SYSTEM FEATURES

- allows the construction of modern external balustrades, which are installed as protection for high opening windows, such as French balconies,
- PF 40 structures are an interesting architectural element that adds to the attractiveness of the building façade,
- strong and durable profiles which ensure maximum level of safety,
- compatibility with all window and door systems with thermal insulation in the Yawal system,
- ensures easy installation to the systems frame based on TM,
- masking clip of the fixing screw ensures aesthetic of the structure,
- filling with glass panes VSG/ESG 66.2, 88.2, 1010.2,
- possibility of manufacturing structures without the upper safety strip, which creates a modern appearance,
- can be used both in single-leaf and double-leaf structures,
- increases building acoustic insulation.

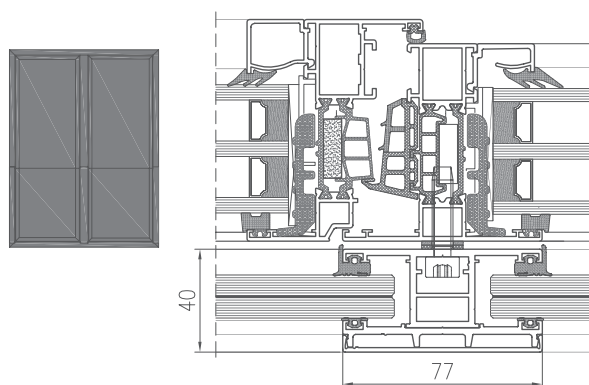


See the product
on the website

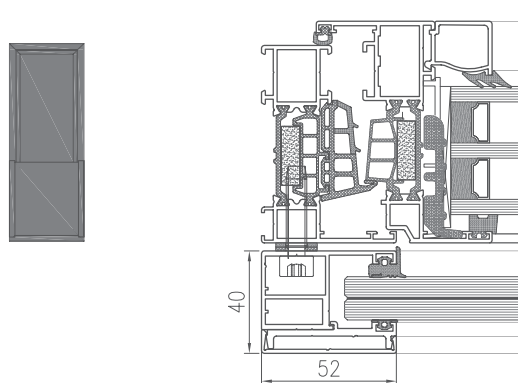
Picture: Examples of the system use

Yawal constructors paid special attention to aesthetic finish of the system. They designed special masking clip, thanks to which the installation screws are hidden, and the whole railing looks very elegant. This solution is not available in products offered by competitive companies. Moreover, the masking clip is made in the same way as the façade clip, which shortens the time of assembly and disassembly of the structure making it easier.

CROSS SECTION THROUGH PF40 BALUSTRADE FIXING TO THE WINDOW MULLION



CROSS SECTION THROUGH PF40 BALUSTRADE FIXING TO THE WINDOW FRAME



The Yawal Portfenetr PF 40 system is mounted to the window frame. Thanks to use of special crosspiece, it is possible to construct the railing on both single- and double-leaf structures. The solution is installed to the frame on vertical profiles in the "H" version, and on vertical profiles and a horizontal profile in the "U" version. The base profiles and pressure strips of the system are sold in a version with drilled assembly openings, which facilitates prefabrication and assembly, thus lowers costs.



aesthetics and functionality

LINEAR DRAINAGE - SYSTEM FEATURES

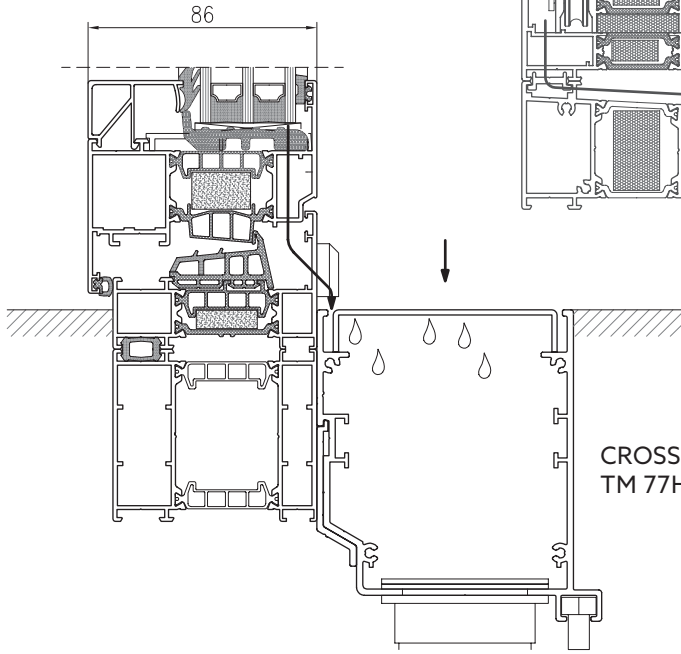
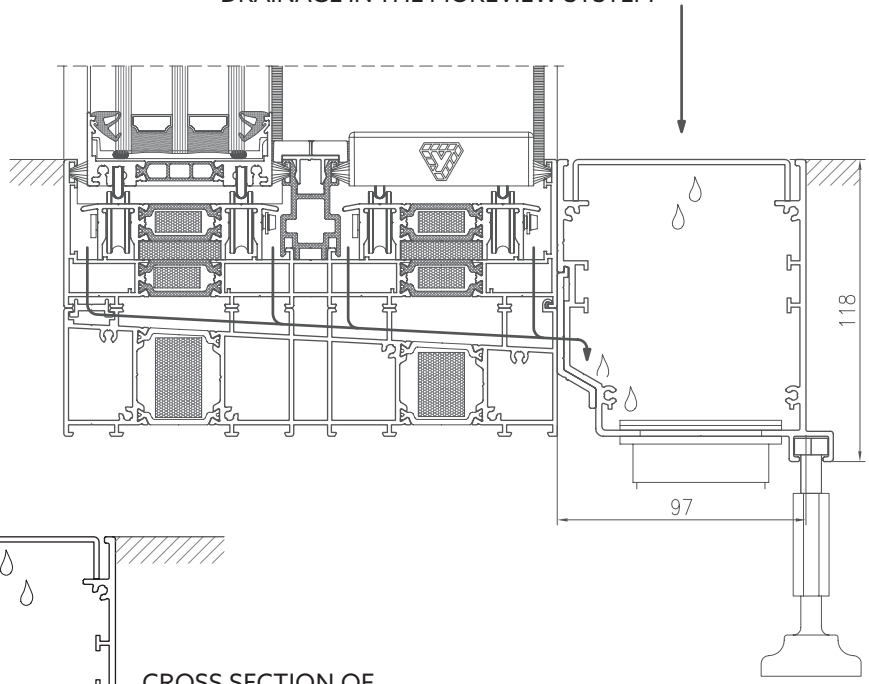
- the system enables the installation of a gutter at the floor level, which promotes effective drainage of condensate,
- Yawal linear drainage is equipped with specially designed connectors that facilitate rainwater gutter bending at any angle,
- linear drainage can be integrated with the frame for additional durability and stability,
- solution compatible with the Yawal systems: Moreview, DP 180, DP 150T, TM 102HI PRESTIGE, TM 102HI, TM 77HI,
- connectors that facilitate gutter shaping in any way,
- saves time required to prefabricate the profiles,
- gravitational outflow of condensate thanks to inclined wall of the bottom widening,
- aesthetic perforated INOX metal sheet.



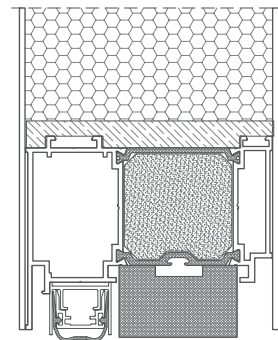
See the product
on the website

Picture: Examples of the system use

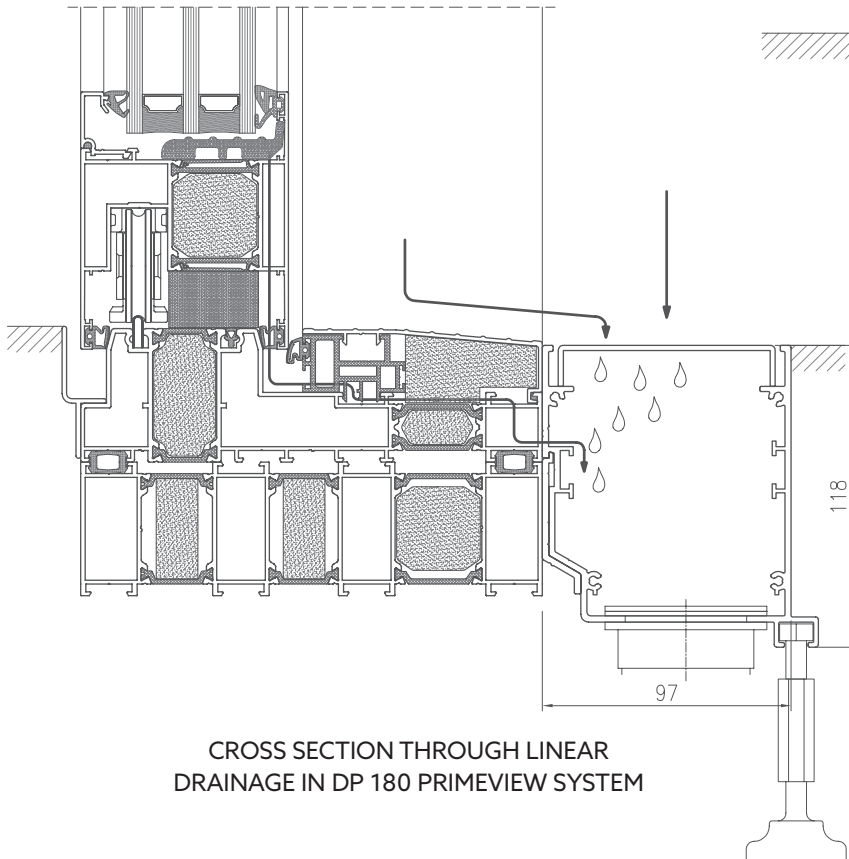
CROSS-SECTION THROUGH THE LINEAR DRAINAGE IN THE MOREVIEW SYSTEM



CROSS SECTION OF TM 77HI SOLUTION



CROSS SECTION THROUGH LINEAR DRAINAGE IN TM 102HI SYSTEM



CROSS SECTION THROUGH LINEAR DRAINAGE IN DP 180 PRIMEVIEW SYSTEM



SUN PROTECTION SYSTEM



complex sun protection

YAWAL SUN PROTECTION - SYSTEM FEATURES

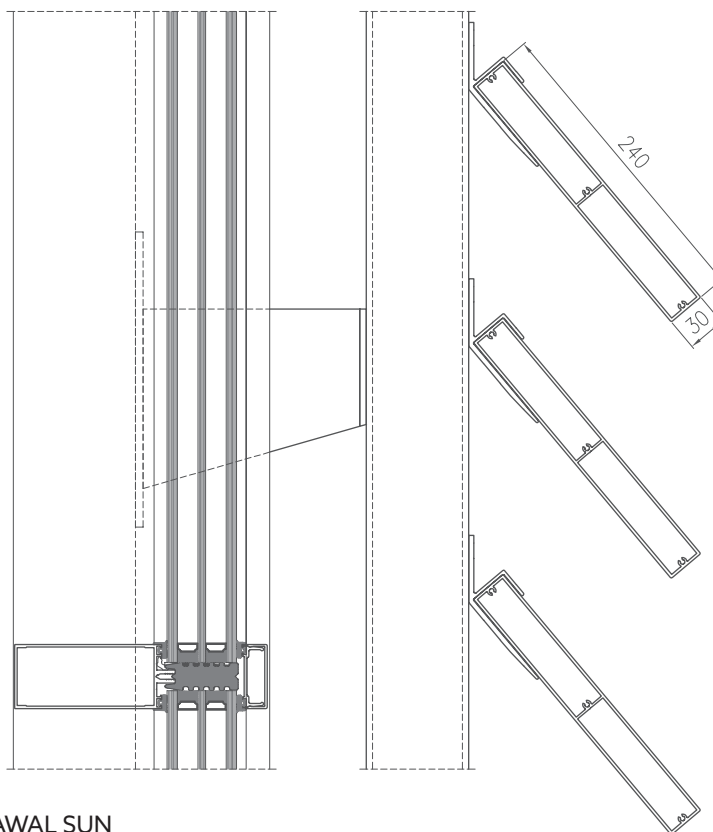
- possibility of automatic control,
- product is available in several variants,
- brise soleils (fixed and movable) and façade shutters,
- complex anti-solar protection of a building,
- enriching building structure with brise soleils,
- increased comfort of work for persons inside the building due to reflecting and diffusing of light entering the building,
- air conditioning costs reduction,
- possibility of connecting with all YAWAL systems.



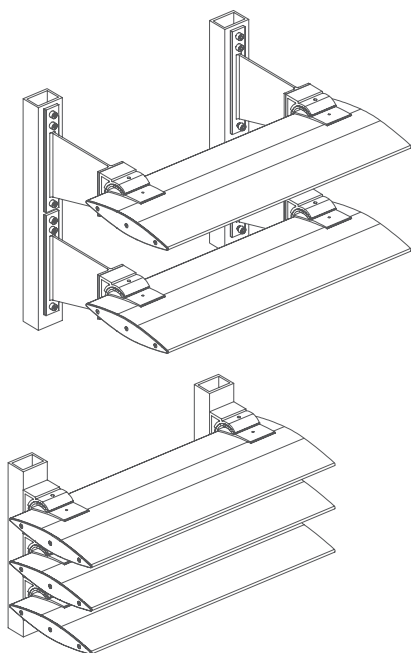
See the product
on the website

Picture: Mediateka - City Library, Sosnowiec
Design: Designing Studio AiM Arkadiusz Miśkiewicz, Katowice,
Aluminium manufacturer: APS-System, Częstochowa

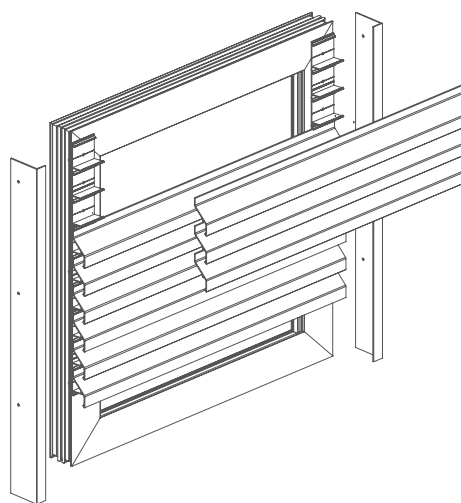
YAWAL SUN PROTECTION -
CROSS SECTION THROUGH
RECTANGULAR SLATS



MOUNTING DIAGRAM OF YAWAL SUN
PROTECTION FIXED SHUTTERS



MOUNTING DIAGRAM OF FACADE SHUTTERS
YAWAL SUN PROTECTION



TECHNICAL PARAMETERS - YAWAL SUN PROTECTION

SAFETY

Wind load resistance EN 13659

Class 6

TECHNICAL PROPERTIES - YAWAL SUN PROTECTION

	FIXED BRISE SOLEILS	MOVABLE BRISE SOLEILS	BLINDS
Shape of protection	elliptic / rectangular	elliptic	"z" - shaped
Protection dimensions	100, 150, 200, 240, 300 mm	100, 150, 200, 240, 300 mm	50, 60, 66, 76, 80, 86 mm
Assembly angle	0°, 9°, 15°, 18°, 27°, 30°, 36°, 45°	premenlivý	konštantný

ECLIPSE
33

ALUMINIUM
SHUTTERS SYSTEM

ever-lasting elegance

ECLIPSE 33 – SYSTEM FEATURES

- modern design,
- periodical maintenance of external surface is not necessary,
- durable colours, easy to clean,
- high durability, no atmospheric corrosion,
- great selection of colours – RAL palette, structural colours, wood-like veneer,
- quick and easy assembly,
- more economic alternative for wooden shutters,
- possibility of connecting with all YAWAL systems.



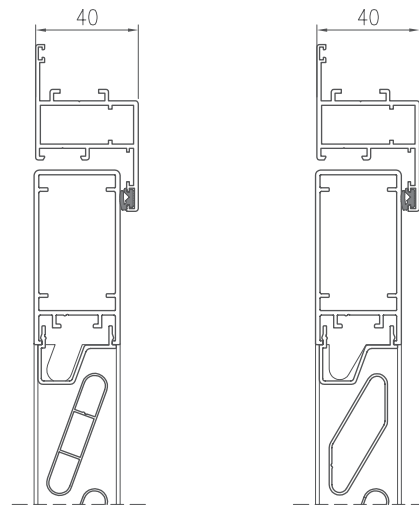
See the product
on the website



Pictures: Private house



VERTICAL SECTIONS THROUGH SHUTTERS WITH FIXED SLATS



TECHNICAL PROPERTIES - ECLIPSE 33

	SHUTTERS WITH FIXED LOUVRES	PANEL SHUTTERS
Maximum dimensions of a single sash	900 x 2400	900 x 2400
Shutter thickness	40 mm	30 mm
Visible frame width	68 mm	18 mm
Infill thickness	27 mm	27 mm
Assembly method	To the frame, to the wall	To the wall



YAWAL SMOKE VENT SYSTEMS
WITH ACTUATORS

Smoke vents

unattended control.

SMOKE VENTS - SYSTEM FEATURES

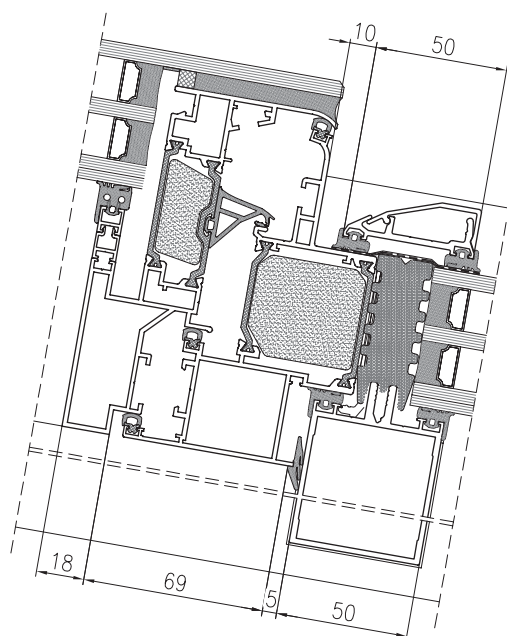
- possibility of using chain, pin or arm actuators, driven pneumatically or electrically,
- possibility of using single actuators or actuators synchronised in tandem arrangement,
- the system increases fire safety by increasing and facilitating fire fighting operations,
- great variety and high functionality of applied solutions,
- possibility of connecting with all YAWAL systems.



See the product
on the website

Picture: City Library, Oświęcim
Design: Susul & Strama Architects
Aluminium manufacturer: Hossa Sp. z o.o., Katowice

CROSS SECTION THROUGH
FA 50N RW WINDOW



TECHNICAL PARAMETERS – SMOKE VENTS

		Smoke vent ESCO NRWG	Smoke vent GEZE NRWG
SAFETY	Reliability PN-EN 12101-2	Re 1000	Re 1000
	Operation in low temperature PN-EN 12101-2	T(00)	T(-05)
	Operation under wind load WL 1000 PN-EN 12101-2	WL 1100	WL 1100
	Resistance to high temperature B 300 PN-EN 12101-2	B 300	B 300
	Reaction to fire PN-EN 13501-1	F	E

TECHNICAL PROPERTIES – SMOKE VENTS

	Smoke vent ESCO NRWG	Smoke vent GEZE NRWG
Aluminium profiles system	FA 50N RW	FA 50N RW
Maximum roof window sash dimensions	1500 x 2500 mm	1500 x 2500 mm
Maximum sash weight	190 kg	200 kg



SYSTEM FOR PVC FITTINGS - SYSTEM FEATURES

In production of windows in systems TM 62HI, TM 102HI, TM 74HI, TM 77HI it is possible to use fittings dedicated for PCV windows production.

- universal solution that allows for using fittings dedicated to PCV systems,
- possibility of using specialist solutions developed for building industry,
- free selection of surface handles.

Pictures: Residential Estate InCity, Warsaw
Design: Grupa 5 Architekci, Warsaw,
Aluminium manufacturer: MBB, Toruń



RC - ANTI-THEFT SYSTEMS

ANTI-THEFT CLASS - FACADE SYSTEMS

	FA 50N	FA 50N EI	FA 50N HI	FA 50N HL	FA 50N PV
RC2	x	x	x	x	x
RC2N	-	-	-	-	-
RC3	x	x	x	x	x
RC4	x	x	x	x	x

ANTI-THEFT CLASS - WINDOW AND DOOR SYSTEMS

	TM 62HI window	TM 62HI door	TM 74HI window	TM 74HI door	TM 77HI window	TM 77HI door	TM 102HI window	TM 75EI fixed windows	TM 75EI door	TM 77EI window
RC2	x	x	x	x	x	x	x	x	x	x
RC2N	-	-	x	x	-	-	-	-	-	-
RC3	x	x	x	x	x	x		x	x	x
RC4	-	-	-	-	x	-	-	-	-	-

Picture: Library of the Naval Academy, Gdynia

Design: WAPA Krzysztof Kozłowski / Design and Construction Company Ekobud S.C. Ewa i Remigiusz Owczarek,

Aluminium manufacturer: Alprof Sp. z o.o., Gdańsk

SEASIDE APPROVAL

Yawal has the Seaside certificate as standard, as the pre-treatment of aluminium plays a key role in the production process. It ensures long-term protection against corrosion and ensures optimal paint adhesion. Each stage of chemical processing of aluminium is inspected on each shift and the results are recorded.

One of the important elements of the mentioned treatment is aluminium etching. This allows the removal of the layer of oxides responsible for corrosion, but also gives the surface porosity, which increases the adhesion of powder paints. Standard technical requirements of the Qualicoat label indicate an etching degree of at least 1.0 g/m². Requirements for Seaside additionally assume that aluminium is degreased and etched to a degree of at least 2.0 g/m².



QUALICOAT LABEL

Qualicoat guarantees a proven set of procedures that ensure the achievement of the best quality protective coatings compliant with the highest standards. As part of the Qualicoat label, Yawal undergoes detailed inspections twice a year. The inspections cover the compliance of the entire production process (chemical treatment, drying temperatures, heat curing conditions), finished products (gloss, coating thickness, appearance) and test panels. The quality label also requires acid salt spray tests and a filiform corrosion test on finished products.

CORROSION CLASS

Corrosion classes according to the PN-EN ISO 12944-2:2001 standard apply only to steel and corrosive environments are defined only in reference to steel. There is no equivalent standard for aluminium. The resistance of the paint system to a specific class of environmental corrosivity is determined based on the time the sample withstood in a neutral salt spray chamber (NSS). The NSS test is too mild for aluminium, so aluminium samples are tested in an acid salt spray test (AASS). The results of testing steel in NSS and aluminium in AASS are incomparable, thus it is impossible to assign aluminium products to corrosion classes for steel.

However, to meet the expectations of the market, we accept orders for painting aluminium profiles for which the requirements of corrosion resistance corresponding to class C4 and C5 will be met, according to the following technological process: chemical treatment with the Seaside certificate with a chromium-free conversion coating, application of anti-corrosion powder paint appropriate for a double-coat system, using the electrostatic method and its polymerization, application of top powder paint in RAL, NCS or other colours, using the electrostatic method and its polymerization.

YAWAL COLOUR SCHEME

All products based on Yawal systems can be performed in any RAL colours. A full colour scheme is available from Technical and Commercial Consultants. You can see the wood-like, standard and anodizing colours by scanning the below QR code.



See the Yawal color chart

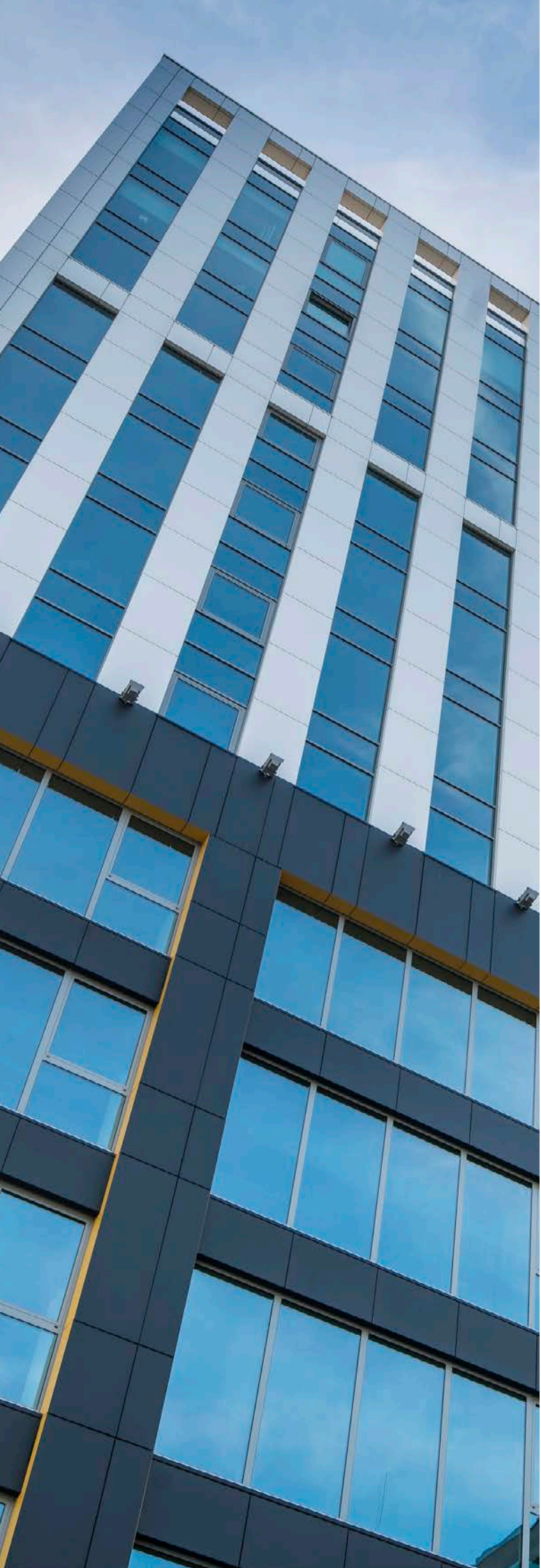


NOTES

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NOTES

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System leaflets



Catalogue of reference buildings



Catalogue Yawal for house



Moreview folder



DP 180 Primeview folder



Knowledge Panel

Issue: 2023

Cover picture: HTM Research and Development Centre, Gliwice
Design: ZALEWSKI ARCHITECTURE GROUP KRZYSZTOF ZALEWSKI, Gliwice
Aluminium manufacturer: APS-SYSTEM Częstochowa



Download the Vademecum

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yawal.com