TM 75EI - SYSTEM FEATURES

This system is dedicated to fire-protection walls and doors, of fire proofing class from EI 30 to EI 60, that may be used as indoors and outdoors partitions.

The system allows for constructing a wide variety of doors and walls combinations. Smoke proof constructions are also possible. Thermally insulated profiles of TM 75EI system are composed of two aluminium parts separated with insulating tapes. The 32 mm wide tapes, acting as insulation in profiles, are made of polyamide reinforced with glass fibre.

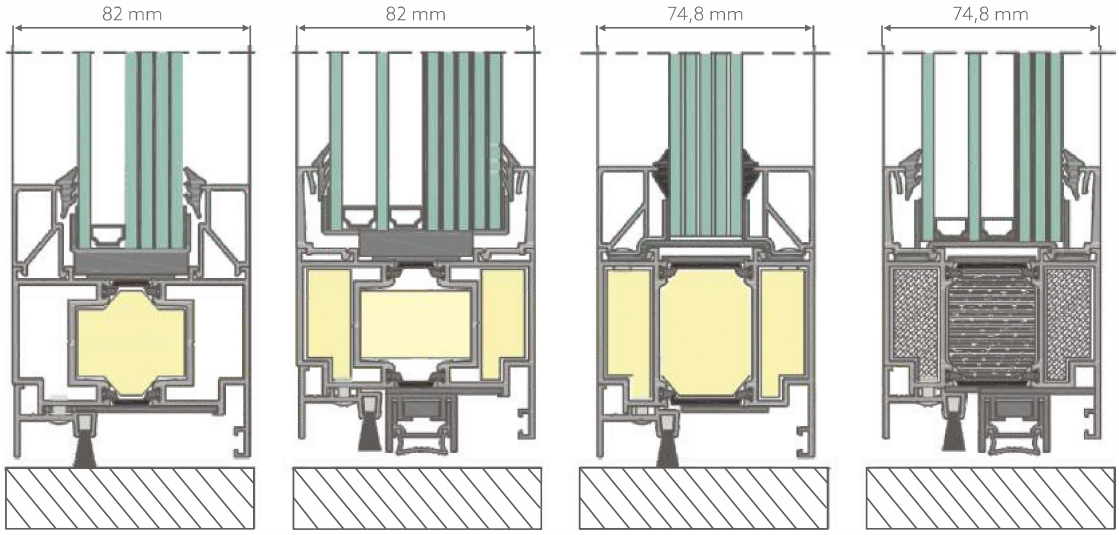
The profiles are manufactured in two versions, the difference consists in the amount of fire proof insulating infills in the chambers between aluminium shapes.

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

ADVANTAGES OF THE SYSTEM

- symmetrical profile design,
- system classified as smoke proof in class S_a S200,
- materials classified as NRO - fire retardant,
- large selection of constructional solutions: from partition walls, display windows, to one-leaf and two-leaf doors (available with transom window or sidelights),
- execution with single-chamber and double-chamber glass,
- a wide selection of suppliers of fireproof glass,
- new insulating inserts that improve the coefficient of thermal conductivity.

CROSS SECTION OF DOOR TM 75EI



TECHNICAL PARAMETERS - TM 75EI

Air permeability	class 2 acc. to PN-EN 12207
Water tightness	class 3A acc. to PN-EN 12208
Fire classification	class EI 30, EI 60 acc. to PN-EN 13501-2+A1:2016 and acc. to PN-EN 13501-2:2016-07
Wind load resistance	class C1 acc. to PN-EN 12210
Heat transfer coefficient	U_f = from 2,1/m^{2}K acc. to PN-EN ISO 6946
Acoustic insulation	R_w= 30÷40 dB acc. to PN-EN ISO 20140-3
Technical approval	AT-15-6830/2016
Classification report	PN-EN 16034

SYSTEM CHARACTERISTICS

		DOORS	FIXED WINDOWS
Door structural depth	Frame profile	74,8 mm / 82 mm	74,8 mm / 82 mm
	Sash profile	74,8 mm / 82 mm	74,8 mm / 82 mm
Glazing thickness		from 8 mm to 62 mm	from 8 mm to 62 mm

TM 75EI - SYSTEM FEATURES

The novelty in TM 75EI system are all-glass fire protecting walls without sash bars (without visible vertical profiles between glass sheets) that guarantee fire protection in class EI 30 and EI 60.

At the same time, visual enlargement of rooms and optimal use of daylight are achieved.

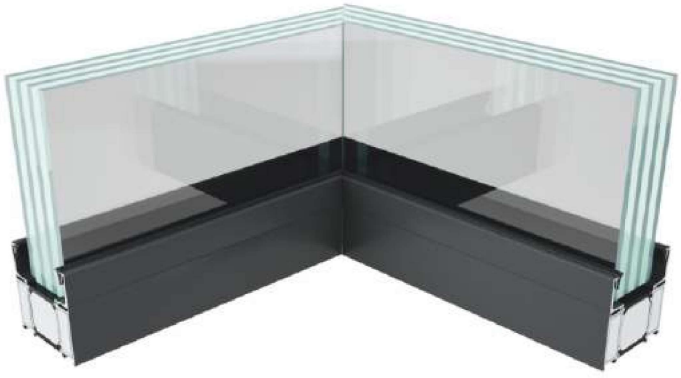
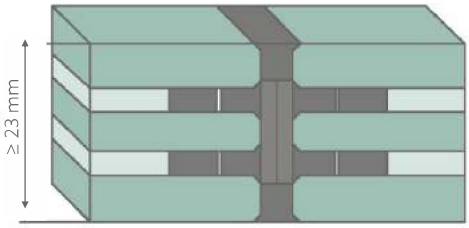
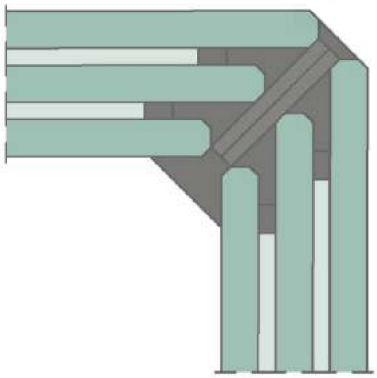


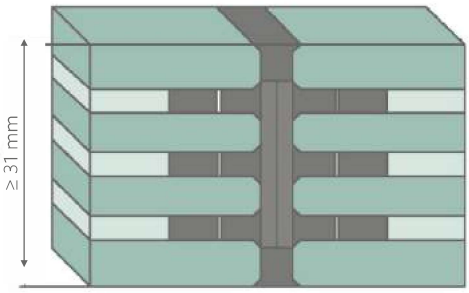
Photo: Example of system use

ADVANTAGES OF THE SYSTEM

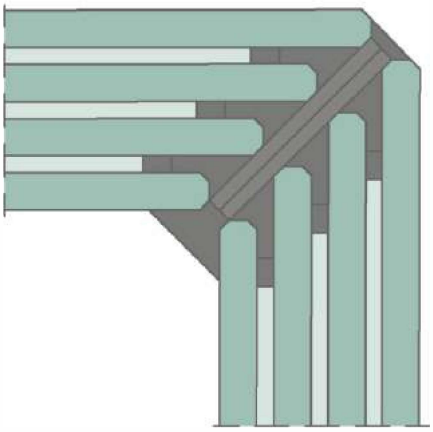
- profile separating glass sheets is invisible (the only visible profile is framing the construction),
- possibility of building walls up to 3840 mm,
- possibility of assembly of TM 75EI door, with fire resistance class EI 30 and EI 60,
- possibility of assembly of all-glass PBI 50N door, not classified,
- corner connection of two glass sheets, angled 90°,
- possibility of selecting manufacturers of glass EI 30 and EI 60: Vetrotech, SAINT-GOBAIN, AGC and EI 30 Bohamet.



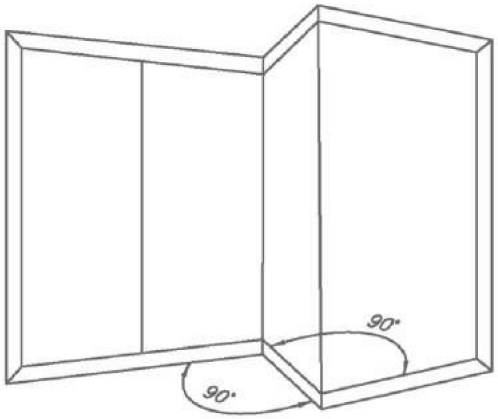




CONNECTION OF TWO GLASS SHEETS
FIRE RESISTANCE EI 30 AND EI 60



CONNECTION OF TWO GLASS SHEETS
ANGLED 90° FIRE RESISTANCE EI 30 AND EI 60



SCHEME OF POSSIBILITIES FOR CREATING
A WALL WITHOUT SASH BARS,
WITH FIRE RESISTANCE CLASS EI 30 AND EI 60

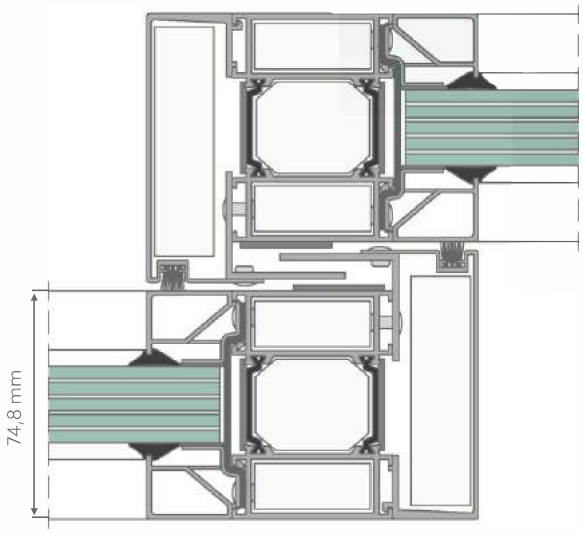
TM 75EI - SYSTEM FEATURES

System of automatic sliding door with fire resistance EI 30 was developed as a supplement to TM 75EI - system of fire protection indoors and outdoors partition walls.

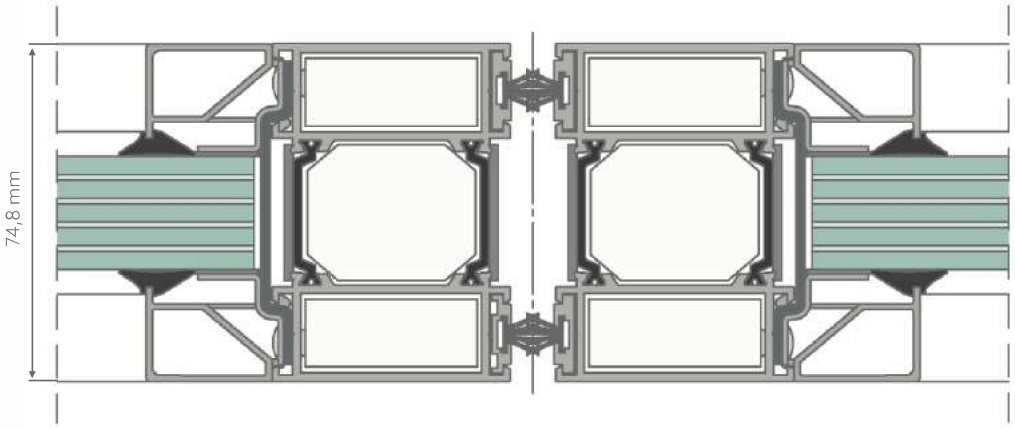
The drive of automatic door may be installed both in brick walls and in partition walls of Yawal TM 75 system.

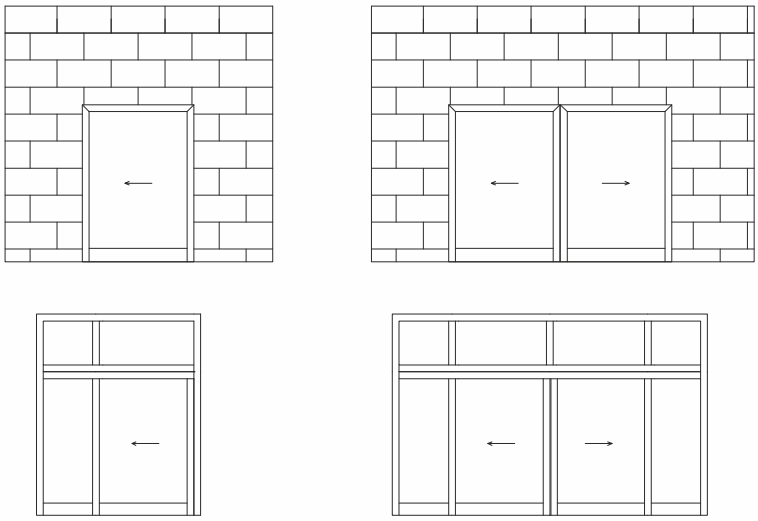
Photo: Polish Coke Office Building, Katowice
Design: Archas Design, Bielsko-Biała
Aluminium manufacturer: Arton Sp. z o.o., Częstochowa

CONNECTION OF DOOR
AND TM 75EI SYSTEM WALL

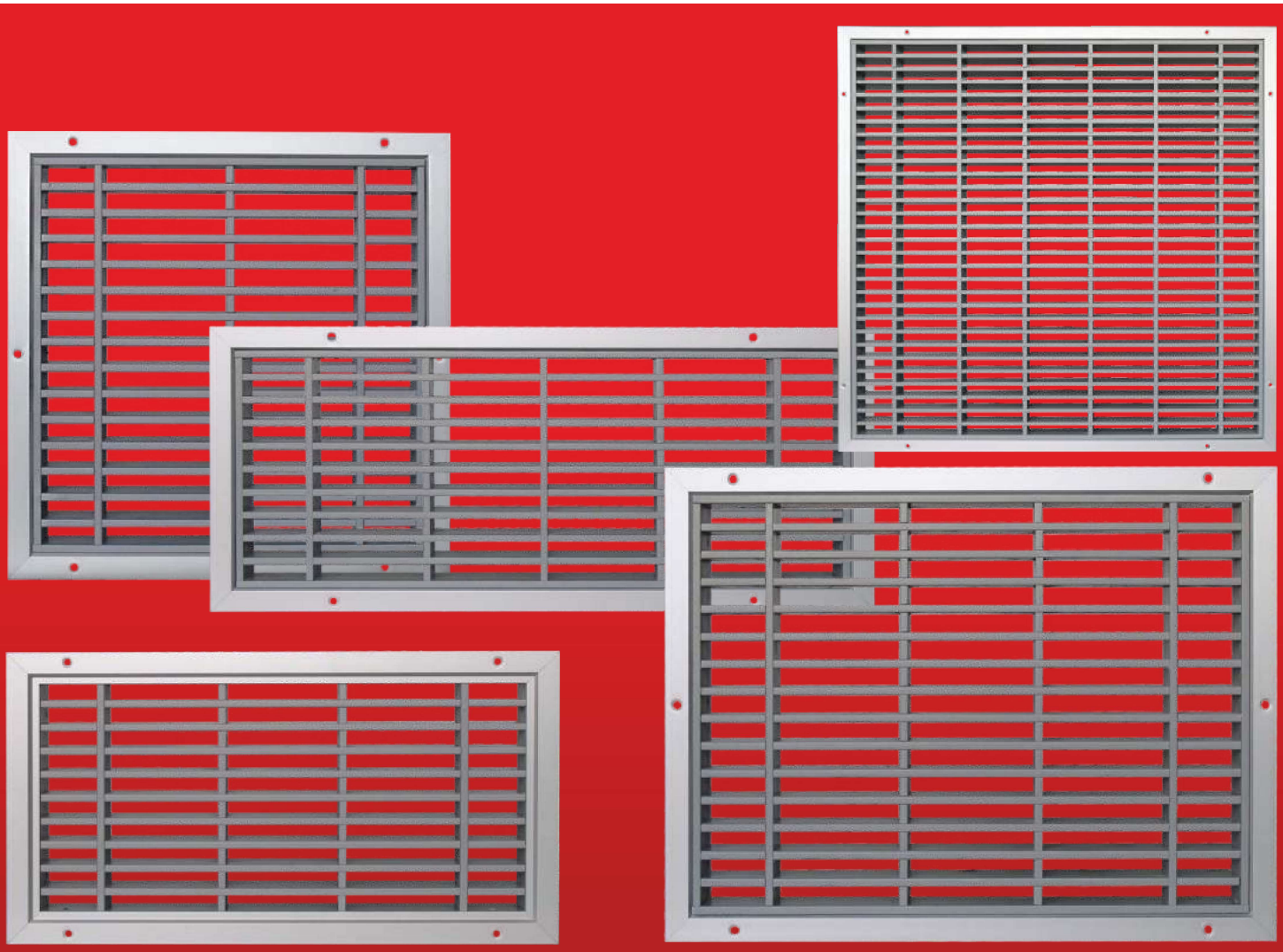


TWO LEAFS COMING TOGETHER





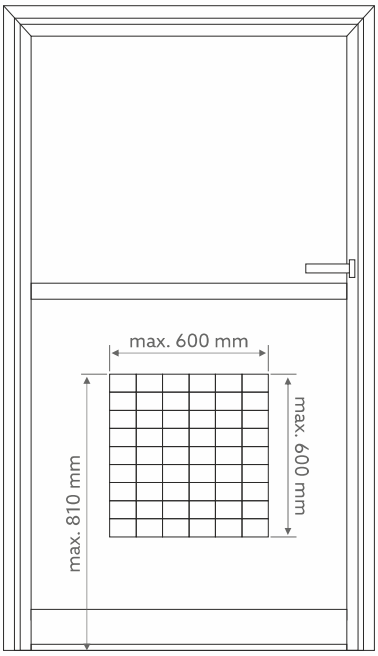
TM 75EI, TM 62EI - VENTILATION GRIDS FOR DOOR AND FIRE-RESISTANCE WALLS

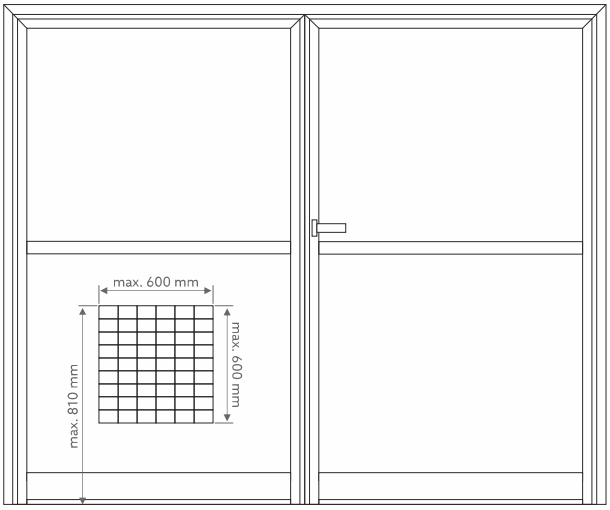


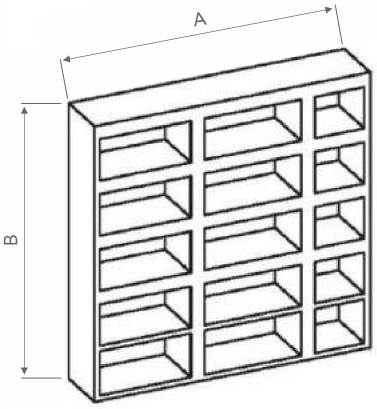
TM 75EI - SYSTEM FEATURES

Two-sided ventilation grids with clearance are intended for use in fire protection door with fire resistance 30 or 60 minutes. They are filled with thermally expanding composite, swelling in 120 degrees and creating tight and non-flammable barrier.

At the same time, they provide good ventilation of rooms and protection against fire and smoke. Grids are available in many dimensions and with various flow rates. They are approved by ITB (Building Research Institute) and may be used in public utility buildings.







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

TM 75EI - Ventilation grids for fire protection door	
Fire resistance of grids	from EI 30 to EI 60
	Frame made of aluminium, filled with thermally expanding composite material
Grid dimensions	Min. - 200 mm x 200 mm Max. - 600 mm x 600 mm
	Grids are anodised in F1 colour. On demand the grid may be coated (powder coating) with high-quality corrosion-resistant paint (RAL palette).
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.

TM 62EI - SYSTEM FEATURES

Yawal TM 62EI 30 system is dedicated to create fire-protection walls of fire resistance class EI30, that are used as indoors and outdoors partitions.

Thermally insulated profiles of the system are composed of two aluminium parts separated with thermal separator. The 23 mm wide tapes, acting as insulation in profiles, are made of polyamide reinforced with glass fibre.

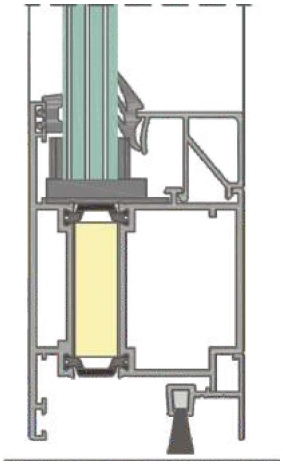
The internal chamber of a profile is filled with insulating fireproof infill. The TM 62EI 30 system is included in the Technical Approval.

Photo: Gallery park apartment complex, Warsaw
Design: KAPS Architekci, Warsaw
Aluminium manufacturer: MBB Bernaciak Marek, Toruń

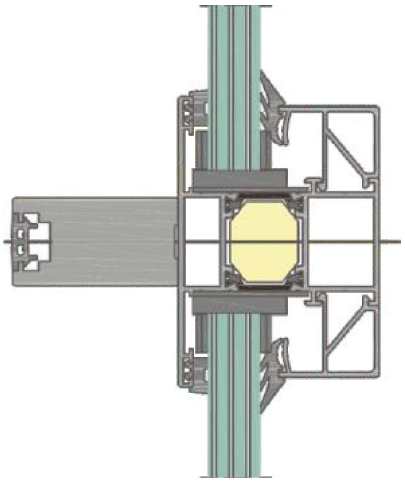
ADVANTAGES OF THE SYSTEM

- wide range of application as indoors and outdoors partitions,
- materials classified as NRO - fire retardants,
- optimal thermal insulation.

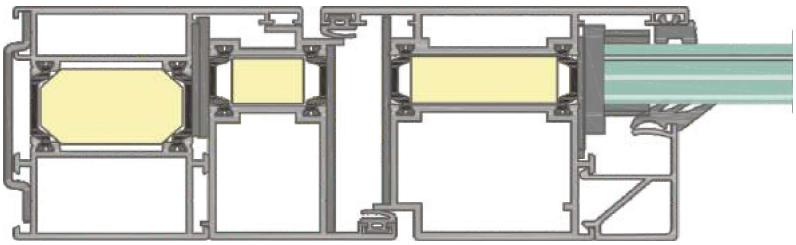
VERTICAL CROSS-SECTION THROUGH TM 62EI DOOR



CROSS - SECTION OF HORIZONTAL OR VERTICAL SASH BAR



HORIZONTAL CROSS-SECTION THROUGH TM 62 EI



TECHNICAL PARAMETERS - TM 62EI

Fire resistance classification	EI 30 acc. to PN-EN 13501-2:2016
Air permeability	class A4 acc. to PN-EN 12152:2004
Water tightness	class RE750 acc. to PN-EN 12154
Wind load resistance	class C1 acc. to PN-EN 12210
Acoustic insulation	R_w = 36÷40 dB acc. to PN-EN ISO 140-3
Smoke protection classification	S_a S200 acc. to PN-EN 13501-2:2016
Technical approval	AT-15-9626/2016

SYSTEM CHARACTERISTICS

	Doors	Fixed windows
Structural depth	62 mm	62 mm
Glazing thickness	15 mm - 36 mm	15 mm - 36 mm

YAWAL FIRE BLOCK 120 TM 90EI - SYSTEM FEATURES

YAWAL FIRE BLOCK 120 TM 90EI allows for manufacturing a wide selection of fire protection partitions with fire resistance class EI 120. It is compatible with TM 75EI system.

System TM 90EI meets the requirement of up-to-date Technical Approval. Max. dimensions of fire protection wall that may be constructed using this system are as follows: height: 4000 mm; width: 5240 mm.

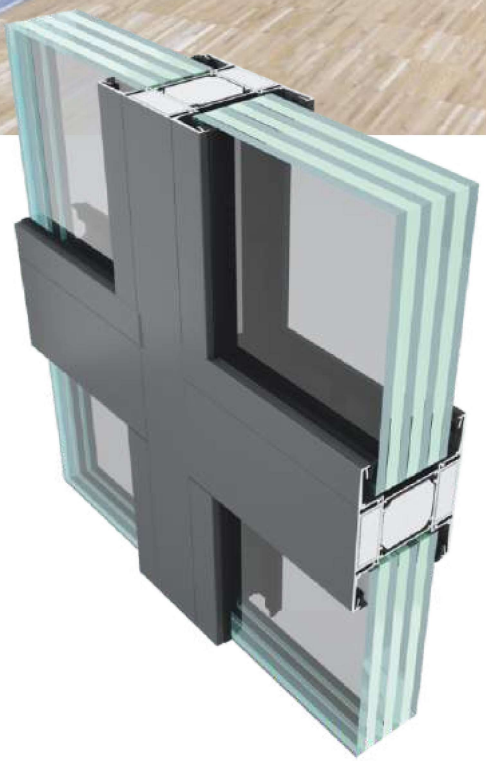
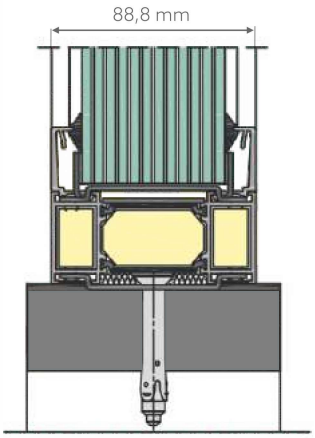


Photo: Neophilology – Silesian University, Sosnowiec
Design: Biuro Architektoniczne Taczewski, Katowice
Aluminium manufacturer: ACARI Sp. z o.o., Cracow

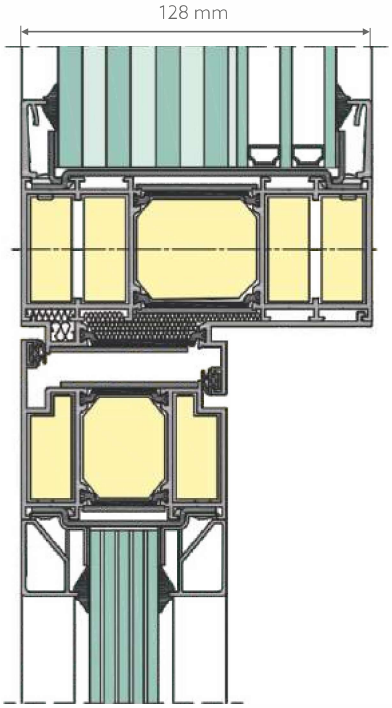
ADVANTAGES OF THE SYSTEM

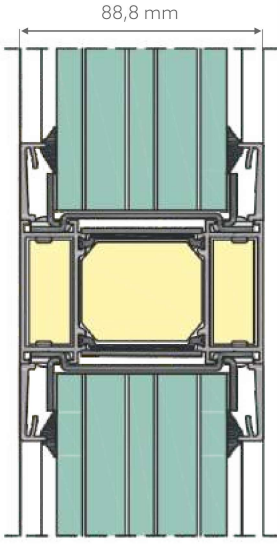
- wide possibilities of use as internal partitions,
- materials classified as NRO - fire retardants,
- possibility of installing doors of YAWAL TM 75EI system in the walls,
- possibility of using non-transparent infills of large dimensions.

CONNECTION OF TM 90 WALL WITH TM 75 EI SYSTEM DOORS



ASSEMBLY METHOD OF CONSTRUCTION TO THE FLOOR





MULLION CROSS-SECTION OR CROSSPIECE CROSS - SECTION

TECHNICAL PARAMETERS - TM 90EI	
Air permeability	class A4 acc. to PN-EN 12152:2004
Water tightness	class R7 acc. to PN-EN 12154:2004
Fire resistance classification	class EI 120 acc. to PN-EN 13501-2+A1
Wind load resistance	class C1 acc. to PN-EN 12210
Acoustic insulation	Rw = 43 dB acc. to PN-B-02151-3:2015
Technical approval	AT-15-8955/2016

SYSTEM CHARACTERISTICS	
	Fixed window
Structural depth	88,8 mm / 120 mm
Glazing thickness	from 50 mm to 100 mm