

CURTAIN WALLS

www.metrawindows.it



METRA
Italian Style Emotions



METRA. ADDING VALUE TO YOUR HOME



METRA. Design, Colour, Emotion.
Italian style desired the world over.

METRA's integrated systems have been created in order to provide quality solutions to any architectural and aesthetic need of the contemporary era. METRA's systems supply comfort and security to your dwelling space.

METRA's systems are characterized by: a vast range of colours, accessories, design complements, anti-break devices, automation and ergonomic design.

Thermic insulation and a certified installation system ('Posa Clima') guarantee long lasting durability and energy saving.

People dreaming of their own house, dream of METRA's window and door frames.



Curtain Walls



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METRA. THE ONLY COMPANY TO OFFER A COMPLETE RANGE OF PRODUCTS

OUR SERVICE

ALWAYS CLOSER TO CUSTOMERS

METRA's toll free number is always available in order to support your ideas, suggesting new solutions and finally directing you to Metra's point of sale. Metra's pre and after sale service will always help you in each phase: from your frame choice to installation, from cleaning advice to traceability of your frame history.

DESIGN AND STYLE

METRA's window and door frames include a wide range of aesthetic styles, adding thus value to the traditional and contemporary dwelling spaces, preserving in this manner the original features of buildings restored conservatively. The latest creations provide more luminosity to living spaces thanks to the tapered shapes and the reduced thickness of profiles.

DESIGN COMPLEMENTS

METRA's design complements are offered in a wide range of coordinated shapes distinguished by the original style capable of satisfying and harmonising the aesthetic requirements of any kind of dwelling environment.

Metra's accessories guarantee enhanced performances to one's own window and door frames.

FINISHING

A huge variety of finishing, resistant and chromatically surprising! From metallic colours to sand effects, opaque, glossy...up to natural wood surface cladding the heart of aluminium.

THE CHOICE OF ALUMINIUM

Aluminium is becoming ever more present in our lives: from simple cans to high-speed trains.

Aesthetically agreeable, malleable, extremely resistant and 100% recyclable.

Aluminium is the ideal material for the creation of windows and doors.

GREEN

METRA is engaged in a low environmental impact production and all its products are Eco-friendly to the maximum extent.

METRA's POINT OF SALE

METRA's point of sale is the place where people enter with a dream and make it come true.



Curtain Walls



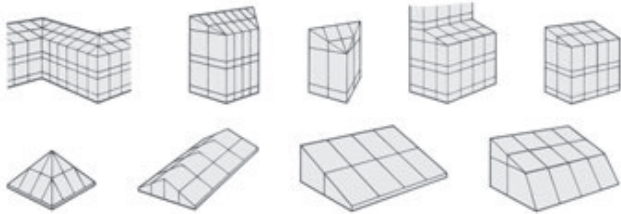
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Poliedra-Sky frees the creativity of designers, stimulating the development of innovative concepts of space and light.

Poliedra-Sky is not just aesthetics but also innovative technology for the realization of complex geometrical shapes in combination with glass, stone, wood and composed materials.

The ideal application is the realization of huge glazed surfaces, in particular the fabrication of transparent tops and dormer windows. The system rightly owes its name to the many-sided constructive and applicative features.

Utilisation



Aesthetics and applications

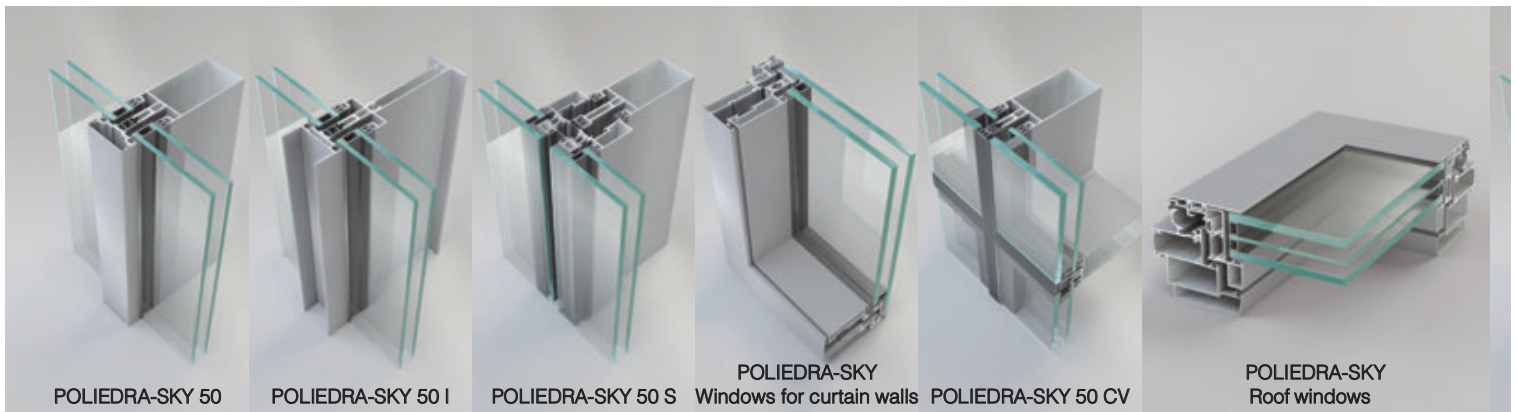
The versatility of METRA systems enable the realization of structures with high technology and great aesthetics, as the connections to the main building can be personalized with additional structures made of steel, wood, etc.

offering the guaranty of the maximum flexibility for all customer's requirements and an optimal equilibrium of the whole building.

Ideal applications in the residential buildings are the huge glazed surfaces such as verandas, winter gardens, stairwells, dormer windows where the utilisation of the curtain wall enables a significant increase of incoming light and energy saving.

Unlike what happened in the past, today the buildings covered with curtain walls require more and more advanced and complete integrated systems in order to enable the realization of particular geometrical shapes, sometimes even complex, and obtain from the external cover dynamic and aerial aesthetics.

For its features in terms of aesthetics, tightness and energy saving, the Poliedra-Sky system can be used both in new buildings or in renovations, by the replacement or integration of new volumes.



Poliedra-Sky Fast 80

Features

- Curtain wall made of structural units or with captured glazing
- 80 mm deep structure, visible inside
- Mullion: 132 mm deep
- Glass thickness: 30 to 44 mm
- Tightness: EPDM internal and glass gaskets
- Thermal-break: PVC co-extruded spacer and polyamide bars
- Original accessories
- Assembly by prefabricated units
- Finishing: anodized or painted
- Aluminium alloy EN AW-6060
- Integration with Casement and Sunblades systems

Opening typologies

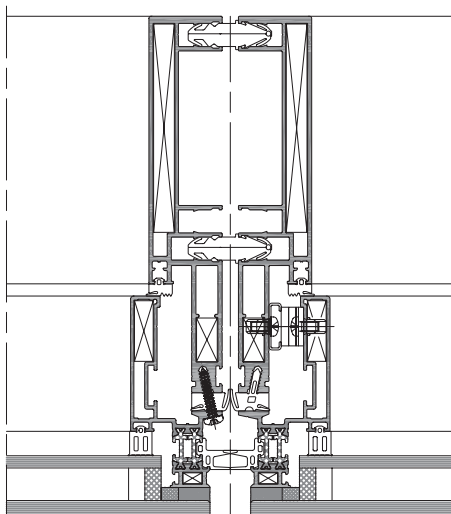


Projecting

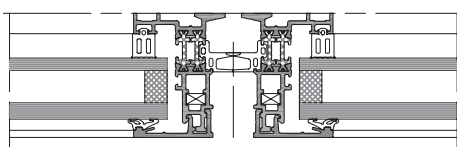


Parallel opening

Section



Structural solution



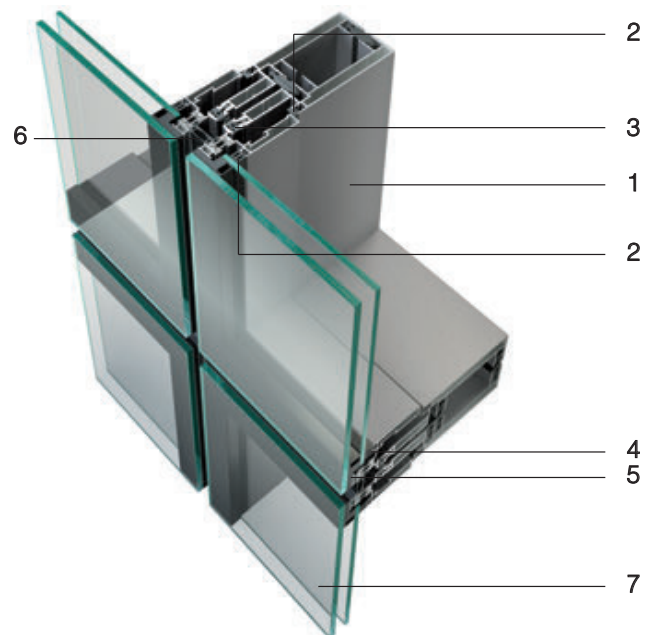
Solution with glazing bead

Horizontal section

Advantages

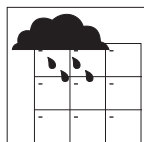
- Acoustic and thermal insulation
- Fabrication of the whole unit realizable in the workshop
- Installation of the units with no need of external scaffoldings
- "Full-glass" or perimetrical edge external look
- Opening vents not visible from outside

Technology



- 1 - Unit frame
- 2 - Sash tightness internal gasket
- 3 - Sash tightness external gasket
- 4 - EPDM gaskets for glazing
- 5 - Structural sealant
- 6 - Perimetrical tightness gasket
- 7 - Insulating glass with air space

Certified performance

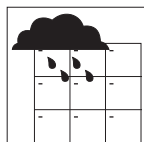


Static watertightness EN 12154

The METRA curtain wall has not had any seepage of water even with a wind pressure equal to a speed of 111,54 km/h (600Pa)

Air pressure applied km/h	(150Pa)	(300Pa)	(450Pa)	(600Pa)	(>600Pa)
	55,77	78,87	96,59	111,54	111,54
Class achieved	R4	R5	R6	R7	RE 1050

Capacity of the curtain wall to block seepage of water when it is struck by a water flow and there is a pressure difference between the internal and external side.

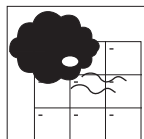


Water dynamic tightness ENV 13050

The METRA curtain wall has not had any seepage of water even with a wind pressure equal to a speed of 111,54 km/h (600Pa)

Air pressure achieved without seepage km/h	(600Pa)
	111,54

Capacity of the curtain wall to block seepage of water when it is struck by a water flow and there is a pressure difference between the internal and external side.

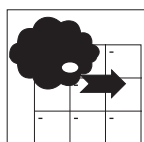


Air permeability EN 12152

The METRA curtain wall was subjected to a wind pressure equal to a speed of 111,54 km/h (600 Pa) and passed the test with positive results.

Air pressure applied km/h	(150Pa)	(300Pa)	(450Pa)	(600Pa)	(750Pa)
	55,7	78,87	96,59	111,54	124,7
Class achieved	A1	A2	A3	A4	AE

Characteristic of a closed vent to let air pass through when the internal and external pressures are mutually different; the smaller the volume dispersed, the greater the window or door quality.

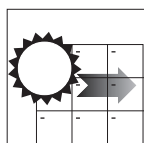


Wind load resistance EN 12179 - EN 13116

When the METRA curtain wall was subjected to a wind load equal to a speed of 250 km/h (3000 Pa), neither breakages nor permanent deformation occurred.

Design load	1200Pa
Safety load	1800Pa

Capacity of a curtain wall door subjected to high pressure and/or suction, such as those caused by wind, to remain within admissible deformation limits and to conserve its initial properties so as to ensure protection and safety to the users.

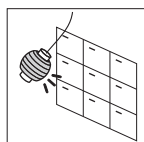


Thermal transmittance EN ISO 10077-2

METRA's curtain wall comply with the energy saving standards.



The heat transmission rate U is the heat flow which goes through the window or door according to m² of surface and for each degree of difference in temperature between exterior and interior. The unit of thermic transmission measurement is W/m²K.



Impact resistance (TEST METHOD WITH A HARD BODY) EN 14019

METRA curtain wall effectively resists impact.

Drop height	200 mm	300 mm	450 mm	700 mm	950 mm
Class achieved	1	2	3	4	5

Capacity of a curtain wall withstand involuntary or accidental impact.

