



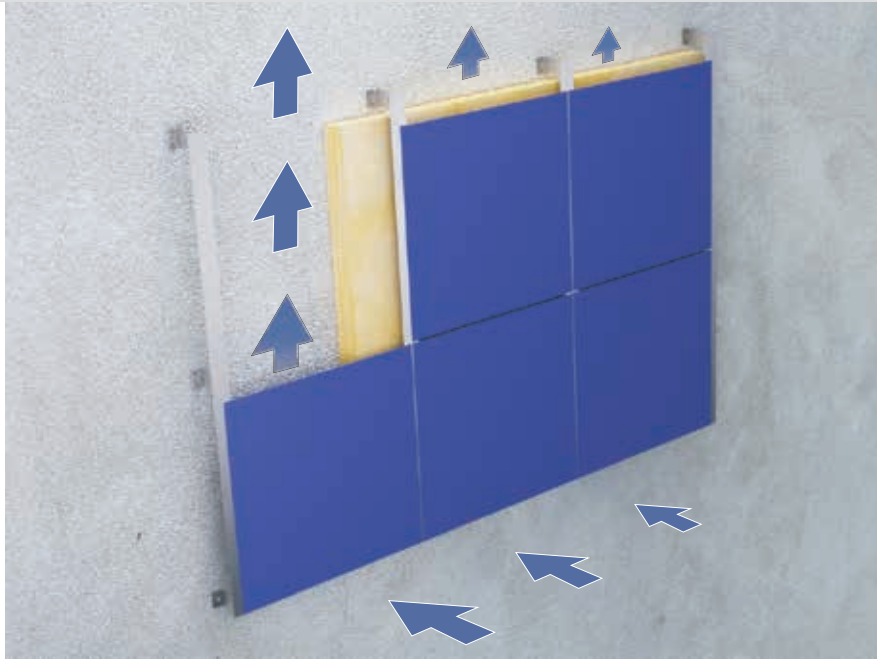
VENT

SUBSTRUCTURE SYSTEMS FOR VENTILATED FACADES



DESIGNED AND MANUFACTURED BY TEHNOMARKET





VENTILATED FACADES

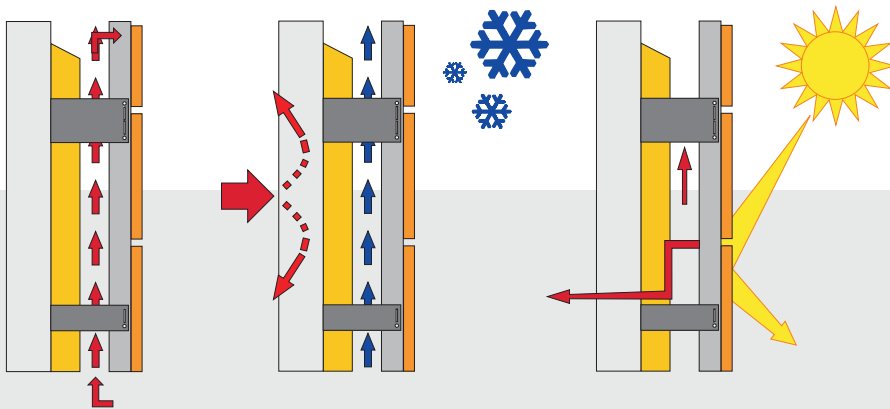
The ventilated facade concept was born out of need for high comfort, durability and reduced costs for modern construction industry.

Due to its functionality and simple application, ventilated facade is the favourable solution for large scale commercial projects, where high level of prefabrication and long-term durability of facade cladding is required.

Ventilated facades are often applied as an ideal and quick option to re-vitalize and improve existing objects in line with latest construction standards - simple addition of new, ventilated facade with its own substructure attached to an existing wall.

The ventilated facade is particularly durable and long lasting while offering great flexibility in architectural shaping of visible facade surfaces. Wide array of cladding materials, structures, colors and finishes makes the ventilated facade an extremely attractive option for architects and developers.

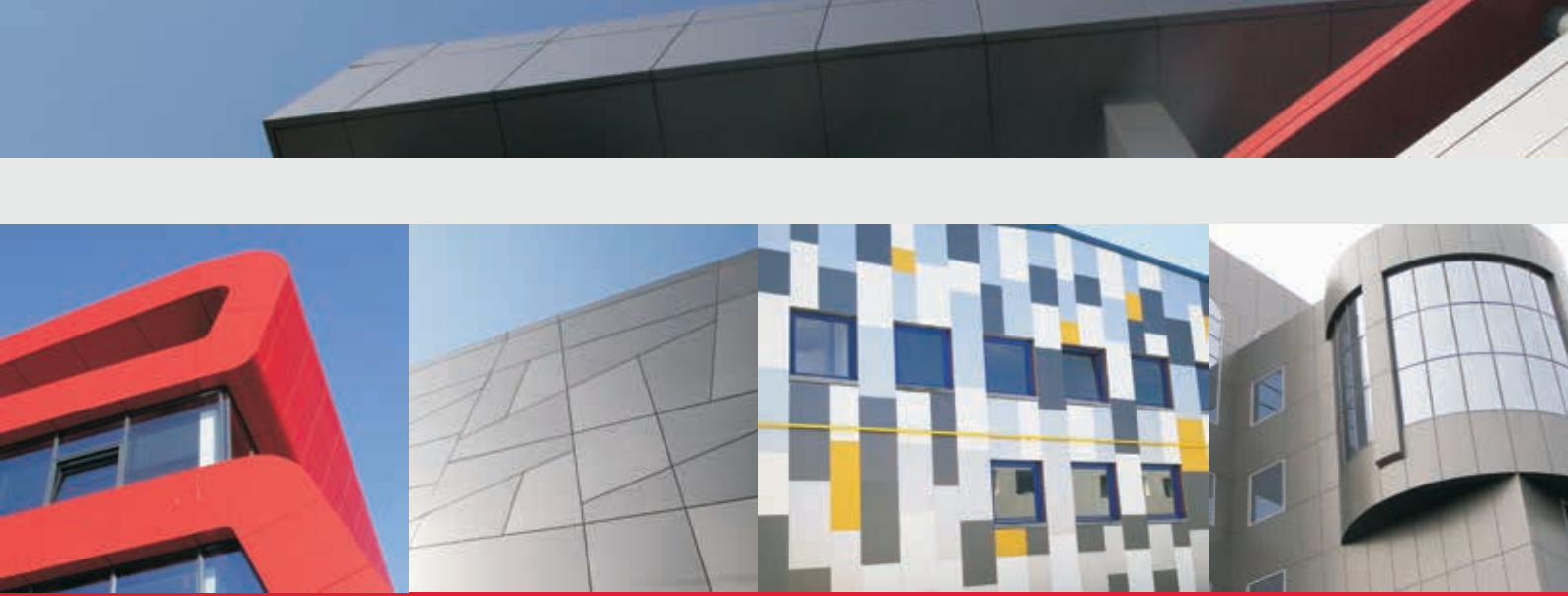
FUNCTIONAL PRINCIPLE OF VENTILATED FACADES



By definition, the facade is a protective layer with primary purpose to provide the best possible thermal insulation and protect internal space from external environmental impact.

A good facade, for both residential and commercial buildings, offers an ideal protection and comfortable environment for all occupants. In modern society, high heating and cooling costs, global warming and environmental protection have forced stricter construction codes and regulations in area of facade insulation properties. Newly introduced norms have had an impact on modern facade construction, with accent on technical solutions that improve ventilation and cooling during warm months and optimal thermal insulation during cold ones.

Ventilated facades are not bonded directly to an existing wall, but instead form an additional layer of air that offers exceptional insulation, not only in winter, but also in summer and therefore enables high level of energy efficiency and preservation. Beside air circulation, ventilated facades offer an option to install different types of high performance insulation and water impenetrable, breathable microporous films within its structure (that help protect main structure from condensation and incidental water penetration) and improve total building insulation.



VENT - SUBSTRUCTURE SYSTEMS FOR VENTILATED FACADES

VENT aluminium substructure systems designed by Tehnomarket are next generation of ventilated facades. VENT facade system consists of 10 different basic systems with options to integrate different facade cladding options and wide array of designer solutions, attachment systems and facade rasters.

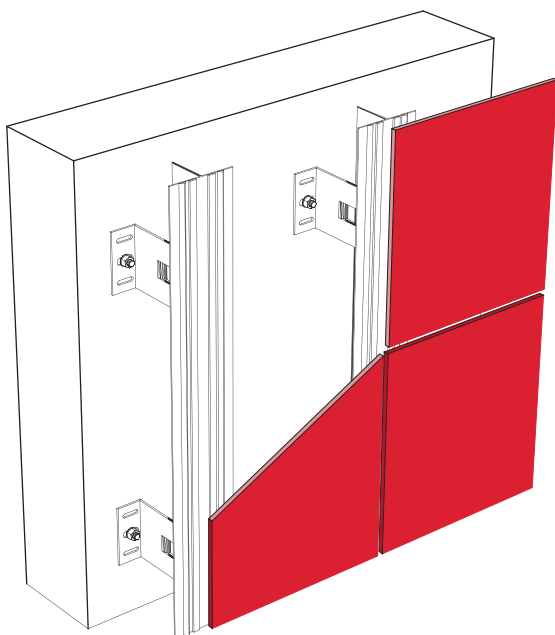
Available options were designed as a result of technical innovation and application of newest architectural trends. Excellent ventilation, quick and easy installation and application of numerous modern cladding materials all contribute to economical and ecological improvements in buildings.

All current cladding materials are supported - aluminium composite panels, flat and corrugated steel sheets, HPL laminates, ceramic tiles, glass, plexiglass, fibercement panels, wooden panels, stone and many other materials.

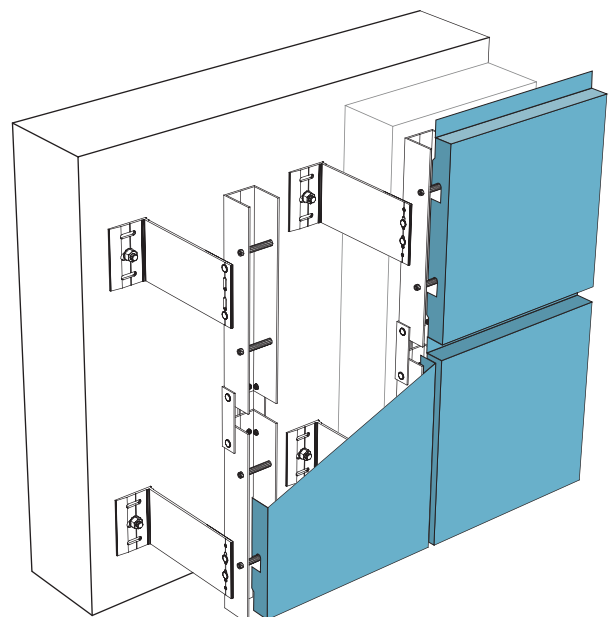
Two basic groups of VENT substructure systems were formed based on shape and machining methods of cladding panels - cassette and panel group, where each group consists of 5 constructively different profile systems and accessories.

THERE ARE TWO BASIC GROUPS OF SUBSTRUCTURES BASED ON SHAPE OF CLADDING PANELS

PANEL systems



CASSETTE systems



PANEL systems



This group consists of aluminium substructure systems for flat cladding panels that feature both visible and hidden mechanical or chemical attachment options. This group covers wide array of facade cladding materials, and features **RIVET, TACK, HIDE, STONE and CONTINUAL systems**.

system **HIDE**

- **fixed anchor** - for attachment of system anchors to wall
- **system anchors** - adjustable load - barring elements
- **load barring aluminium profile** - vertical
- **additional aluminium profile** - horizontal/rail
- **profiled mount**
- **facade cladding ***

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for flat panel cladding with invisible mounting. Special anchors, constructed and manufactured by Kiel and Fischer, are used in this system. It is one of preferred ventilated facade systems in modern architecture due to dry installation process, high percent of workshop prefabrication and clean look of a finished building. The only requirement this system imposes is minimal cladding plate thickness of 6mm.

system TACK

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load - barring elements
- **load barring aluminium profile** - vertical or horizontal
- **facade cladding ***

• for final installation, use fastening methods and accessories specified in technical documentation

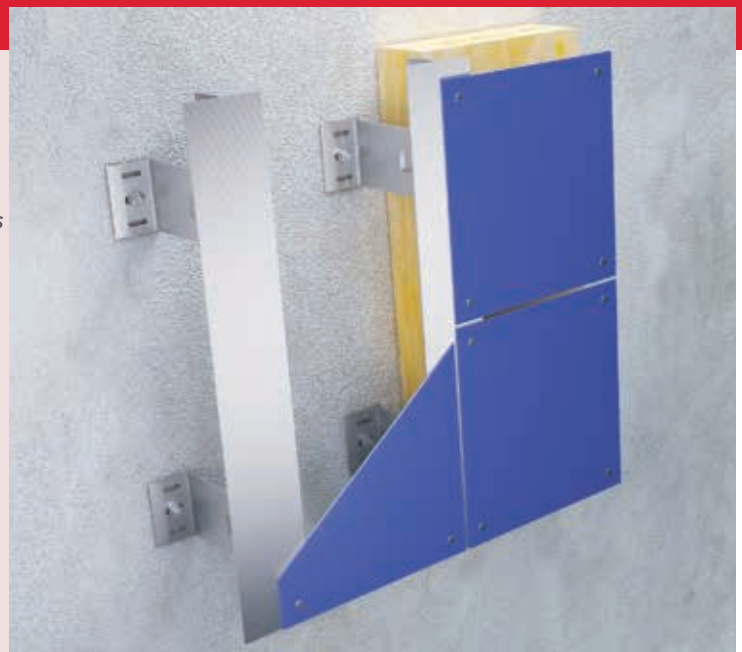


Aluminium substructure system for flat panel cladding featuring invisible mounting with glue. This wet installation method requires preparation both in workshop and on construction site. It offers great flexibility with cladding material options, facade design and unusual aesthetics with numerous possibilities for combining of irregular shapes and forms on the facade.

system RIVET

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load - barring elements
- **load barring aluminium profile** - vertical or horizontal
- **facade cladding ***

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for flat panel cladding featuring visible mounting, usually pop-rivets or fasteners. They can be visually accented with special, decorative heads or even powder coated in panel color if least possible visibility is required.

• available substructure and cladding combinations can be found in the table at the end of this brochure



system **STONE**

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load-barring elements
- **load barring aluminium profile** - vertical or horizontal
- **stainless steel load-barring plates** - cleats
- facade cladding *

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for flat panel cladding (usually granite ceramic) fixed by stainless steel cleats with visible or hidden fixing system. The visible part of the stainless steel cleat can be powder coated in any RAL color according to project requirements. This dry installation system features simple installation, high load-barring capacity which makes it the industry standard for heavy cladding materials.

system **CONTINUAL**

- **fixed anchors** - for attachment of system anchors to wall
- **system anchors** - adjustable load-barring elements
- **load barring aluminium profile** - vertical or horizontal
- **square tube** - vertical or horizontal
- **cover cap**
- **polyamide batten**
- **contact rubber for secondary profile**
- **cover cap fixing plate**
- **contact rubber for primary profile**
- **decorative profile** - cover
- facade cladding *

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for flat panel cladding featuring emphasized visible facade partitions. This partitioning is possible via vertical and horizontal cover caps, in all according to architect's proposal. This way, the the same visual effect as with glass curtain walls achieved is (therefore the system's name Continual). This dry installation system has no limits regarding the cladding panel material.

CASSETTE systems



This group consists of five aluminium substructure systems for specially formed cassettes that are machined and bent into shape, with certain depth and usually completely hidden mechanical attachment to aluminium substructure. Cladding materials used in this group allow for easy machining and shaping. Systems in this group are: **BOX, SLIDER, BOLT, GASKET, SILICONE, FIT.**

system BOX

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load-barring elements
- **load barring aluminium profile** - vertical or horizontal
- **sliding panel bracket**
- **facade cladding ***

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for installation of specially machined and formed cassettes fixed with hidden cantilevers and brackets formed from small square tube profiles. This dry installation system features full workshop preparation of cassettes that are quickly installed on a construction site as finished facade elements.

• available substructure and cladding combinations can be found in the table at the end of this brochure

system **SLIDER**

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load-barring elements
- **load barring aluminium profile** - vertical Ω profile
- **sliding panel bracket with bolt**
- **corner cassette reinforcement** - L profiles 22mm in length
- **facade cladding ***

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for specially machined and shaped cassettes fixed by sliding panel brackets with visible bolts in gaps between cassettes. This dry installation system features quick and efficient installation due to complete workshop preparation of all cassettes. It is named after fixing method after special sliding brackets that are fixed to each cassette and later slide onto load-barring substructure.

system **BOLT**

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load-barring elements
- **load barring aluminium profile** - vertical
- **bolt** - 60mm long
- **corner cassette reinforcement** - L profiles 22mm in length
- **facade cladding ***

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for specially machined and shaped cassettes fixed by panel brackets with visible bolts in gaps between cassettes (this is where the system's name comes from). This dry installation system features specially machined openings used to fix cassettes for aluminium substructure.

system **GASKET**

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load-barring elements
- **load barring aluminium profile** - vertical or horizontal
- **cassette-fixing profile** - shortened L profiles
- **gap fillings** - epdm gaskets and optional structural silicone
- facade cladding *

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for specially machined and shaped cassettes, very suitable for encasement of not only walls, but also columns, ceilings, niches and other complicated areas. It is best known for its emphasized gaps between facade cassettes. This look is achieved through inserting and fixing of special EPDM gasket into gaps which give the impression that entire facade is sealed. This dry installation system features extremely practical installation and doesn't require high precision.

system **FIT**

- **fixed anchors** - for attachment of system anchors to wall
- **plastic washer** - in case of specified thermal break
- **system anchors** - adjustable load-barring elements
- **load barring aluminium profile** - vertical or horizontal
- **profil za prihvatanje kaseta**
- **spojna guma** - tampon guma između prihvatnog i naležućeg profila
- fasadna obloga *

• for final installation, use fastening methods and accessories specified in technical documentation



Aluminium substructure system for specially machined and shaped cassettes. Their installation is extremely easy due to easy matching of two specially constructed aluminium profiles that fit perfectly together. Its trademark are fine visible gaps, only 9mm wide, and if underlying profile is powder coated the gap can even be colored. This dry installation system features partial workshop preparation and quick installation.

• available substructure and cladding combinations can be found in the table at the end of this brochure



	RIVET	TACK	HIDE	STONE
ALUBOND U.S.A aluminium composite panels	●	●	●	
HPL laminated panels (Trespa, Fundermax...)	●	●	●	●
glass	●	●	●	●
granite ceramics		●		●
fibercement panels	●	●	●	●
sheet metal	●	●		
corrugated sheet metal	●			
Aquapanel	●			
polycarbonate sheets	●	●	●	
facade raster size	●●●	●●○	●●●	●○○
gap width min - max	5-40mm	8-20mm	5-40mm	9mm
cladding thickness min - max	4-25mm	6-14mm	6-20mm	11mm
distance from load-barring wall * min - max	64-230mm	64-230mm	64-230mm	64-230mm
maximal thickness of thermal insulation	200mm	200mm	200mm	200mm
CNC machining (cutting, grooving, cutting holes...)	●	●	●	●
workshop preparation		●	●	
installation speed	●●●	●○○	●●○	●●●
dry installation process	●		●	●
wet installation process		●		
substructure system price	●○○	●●●	●●●	●○○

* Tehnomarket offers special anchors that allow up to 650mm distance from load-barring wall to cladding.



CONTINUAL	BOX	SLIDER	BOLT	GASKET	FIT
●	●	●	●	●	●
●					
●					
●					
●					
●	●	●	●	●	●
●					
●					
● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
25-55mm	14mm	14mm	5-30mm	8-12mm	5-9mm
2-60mm	2-8mm	2-10mm	2-15mm	2-8mm	2-6mm
64-230mm	90-265mm	90-265mm	85-245mm	85-245mm	90-265mm
200mm	200mm	200mm	180mm	200mm	200mm
●	●	●	●	●	●
●	●	●	●	●	●
● ● ● ○	● ● ● ○	● ● ● ○	● ● ● ○	● ● ● ●	● ● ● ●
●	●	●	●	●	●
				●	
● ● ● ○	● ● ● ○	● ● ● ○	● ● ● ○	● ● ● ○	● ● ● ○



NEW NAME FOR MODERN FACADES

TEHNOMARKET d.o.o.

Skadarska 73
26 000 Pančevo
Srbija
Tel: +381 13 307 700
Fax: +381 13 307 799
E-mail: plasman@tehnomarket.com

PROFILE SALES

Jabučki put 221
26 000 Pančevo
Srbija
Tel: +381 13 334 507
Fax: +381 13 377 564
E-mail: profil@tehnomarket.com

ALUBOND U.S.A PANEL SALES

Skadarska 73
26 000 Pančevo
Srbija
Tel: +381 13 307 700
Fax: +381 13 307 799
E-mail: alubond@tehnomarket.com

www.tehnomarket.com