

Product Specifications.

Module types

- Framed solar modules
- Frame thickness from 30 to 50 mm
- Module length from 1,630 to 1,690 mm
- Module width from 950 to 1,010 mm
- Others in development or available upon request

Applications

- Flat roofs
- Bitumen, membrane, gravel and trapezoid sheet roofs
- Module incline 15°
- Roof incline up to 5° max.

Alignment

- Mounted
- Landscape format arrangement
- Arbitrary orientation

Material

- High-quality aluminium
- Stainless steel
- UV-resistant plastic parts
- Temperature-stable

Special features

- Full-surface ventilation, optimum yield
- Drill-free, no swarf, no roof damage
- No roof penetration
- Ballast-optimised, but high ballast loads also possible if required
- Available pre-assembled on delivery: very fast installation
- Each module individually replaceable
- Proven montavent screwless technology
- Module fastened to original fixing points in accordance with manufacturer's specifications

The montavent installation system MACH1 fulfils the requirements of DIN 1055-4 with regard to wind load. As montavent does not have sufficient information relating to all building parameters, reference is made exclusively to the impact of wind forces. The contractor/purchaser is responsible for ensuring the necessary load tolerance (PV installation, wind, snow, etc.) of the building including the roof cladding.

At home on the roof since 1992 and proven ten thousandfold.

Swiss PV engineers and PV installation designers at energiebüro® ag in Zurich have been developing montavent PV installation systems since 1992. The systems have proven themselves ever since in practical applications, including an installation on Europe's largest stadium, the Stade de Suisse in Bern, which was awarded the European Solar Prize. Montavent products have been continuously refined, improved and marketed by the company montavent ag since 2007.



District school in
Offenburg (D)
Built in 2010
Output 32 kWp



St. Jakob stadium Basel
Built in 2001/04
Output 150/200 kWp



Stade de Suisse Bern
Built in 2005/2007
Output 1,350 kWp



Primary school in
Heidesheim (D)
Built in 2010
Output 115 kWp

Use montavent TRAPEZ or LAMINAT to fasten modules parallel to the roof on profiled metal roofs.

Your partner

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montavent MACH1

For framed solar modules

Fast, low-ballast installation on flat roofs

Product advantages

- Full-surface ventilation secures the best possible yield
- Installation without drilling means no swarf on the roof
- Systems pre-assembled on delivery are quickly installed
- Modules are fastened at the original fixing points in accordance with the module manufacturer's specifications
- Modules are securely fastened using the proven montavent screwless technology
- Optimum ratio between yield and roof area

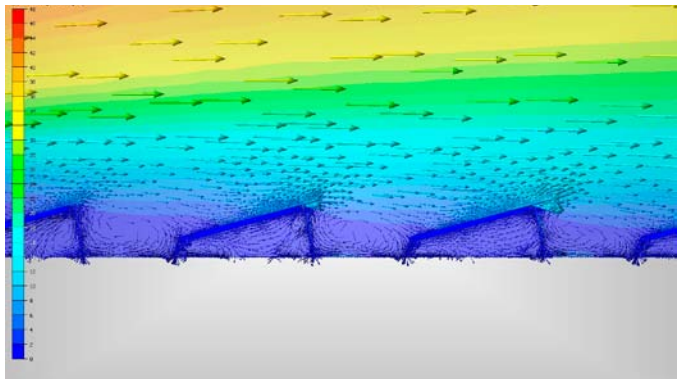
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Low ballast: you avoid unnecessary loads on the roof.

With the exception of border areas, ballast is usually unnecessary thanks to the system's aerodynamic design. This makes montavent MACH1 ideal for roofs with fewer load reserves.



Numeric simulations and wind tunnel measurements enable the calculation of actual impacting forces. The consequence for you: ballast only where necessary and no unnecessary weight on the roof

Roof loads as low as 8 kg/m²: thanks to building-specific wind load calculation.

montavent carries out a binding wind load test for every installation to ensure the stability of the structure. Customised calculations for each building show that ballast is usually unnecessary at the centre of the field. The average roof load of a montavent MACH1 PV system is typically less than 10 kg/m².



Fast installation: no drill, no cordless screwdriver.

All montavent components are delivered pre-formed and pre-drilled: you assemble the accurately-fitting solar field on the roof with next to no effort. As enthusiastic customers confirm time and again: working with montavent is more efficient than with other PV installation systems.



Pre-formed and pre-drilled system components mean: no drilling on the roof, no roof penetration, quick and easy installation.

Even faster: pre-assembled components require even less installation time.

montavent MACH1 is available pre-assembled on delivery if desired. The benefits for you are easier logistics, less expenditure on manpower and organisational input and even shorter installation times. This makes montavent MACH1 probably the world's fastest installation system for flat roofs.



Precision and speed

System components have a nested design. This enables the exact and effortless installation of PV modules – errors are practically ruled out.



Speed and safety

Components are secured by setting rivets at precisely defined points with a standard rivetting device. This combination of speed and safety gives you the advantage in every regard.



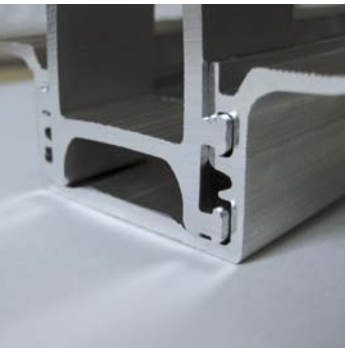
Stability and security

Process reliability is all-important. The rivets expand to a precisely defined shape and are solidly anchored to the support. They guarantee a long-lasting and secure fixture.



Strength and simplicity

The system developed by montavent absorbs forces where they should be absorbed. Simply snap in the clip to banish shearing forces.



Strength and form

The support profile and module bracket form an accurate, form-fitting unit. Its special shape absorbs forces at exactly the right point. This results in optimum ventilation.



Set and secure

The support profiles serve as a bearing surface for the PV modules. They are effortlessly inserted and accurately positioned within seconds by just one person.



Slide in and go

The pre-formed module brackets are simply pushed into the support profile to anchor the modules. Missing or incorrectly tightened screws are therefore ruled out. Slide in – job done – no mistakes.



Start and finish

Stops are moulded into the montavent support profile at the ends of each aluminium rail. Permanent, stable and still very fast, with no drilling or screwing. Safe is safe.

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