



THE PREFABRICATED VACUUM ROOFING SYSTEM

Harnessing The Force Of Nature



Working With The Forces Of Nature

Loose laying for an air tight fit

Protan's unique vacuum roofing system utilises wind forces present in the environment to provide durability and protection even in extreme conditions. Since the installation of the first Norwegian vacuum roof in 1985, the system has been adopted for over 2 million square metres of roofs throughout Europe.

The Protan Vacuum roofing system works by loose laying the Protan SE membrane onto the roof with fastening only around the perimeters and penetrations. Strategically located vents within the design act as pressure release valves. The stronger the wind forces, the better the system works. The system is suitable for both new roofs and refurbishments, in particular those with structural concrete or concrete slab decks.

A key component is an airtight load-bearing vapour control layer. The system introduces controlled airflow beneath the membrane through specially designed air valves. Due to the nature of the design principle, the substrate must be airtight.

Rapid installation without waste

The Protan Vacuum roofing system offers many benefits to the specifier, contractor and building owner:

Sustainable and energy efficient:

- The system is adhesive-free so there is neither toxic waste nor consequent health risk to the installer;
- The airtight fit helps achieve and can exceed Part L regulations. Only mineral wool insulation is suitable for the vacuum roofing system due to its airflow dynamics;
- The supporting structures and vapour control layer are not penetrated by fasteners;
- Upon expiry of its minimum 30-year lifespan, the membrane is easily recycled along with the mineral wool insulation;



The Protan membrane provides long term durability with proven weathering in excess of thirty years



Cost-effective:

- No fasteners ensures rapid installation with reduced labour time, contributing to a reduced construction programme – particularly important when installing on concrete substrates;
- Cost saving is possible, depending upon the geometry of the building.

Early consultation with Protan will ensure the optimal design for the roof. Various shapes can be accommodated, from flat to barrel vault.

A complete service

The Protan Vacuum roofing system offers specifiers a full design service so the advantages of the system can be completely understood in order to maximise the benefits from feasibility through to the building's operation.

- Outline proposals and budget costs
- Thermal, acoustic, and air leakage assistance, including advice on Part L requirements
- NBS specifications
- CAD drawings
- Specialist installation from Protan's accredited Partner contractors
- Warranty approvals

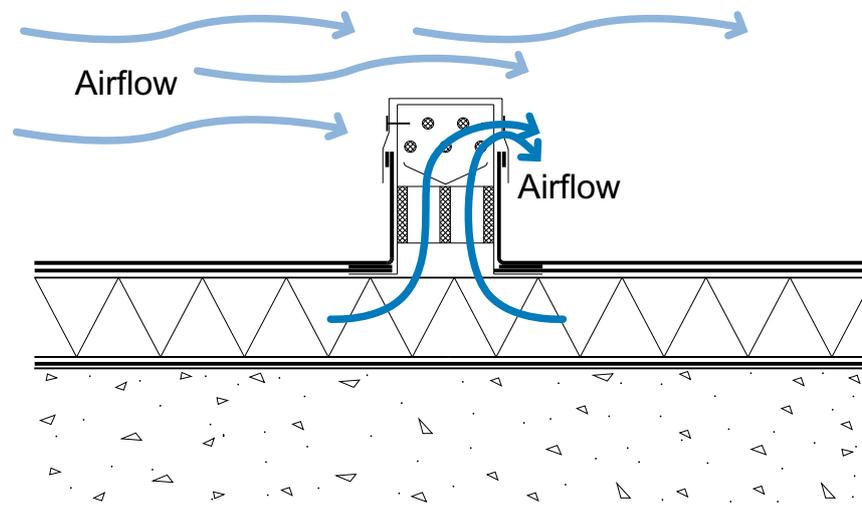
Complete solution

The The Protan Vacuum roof system is individually designed to suit the intended roof minimising any waste. Consultation with Protan will ensure the optimum design and maximum savings in terms of installation time and material costs.

Protan's experience with prefabricated offsite projects enables its expertise to be used in the vacuum roof system. Protan's prefabricated components include:

- Up to 4m wide membrane sheets
- Internal/external corner details
- Drainage outlets
- Mansafe systems
- Membrane laminated metal edge trims Along with technical guidance,

Along with technical guidance, Protan can provide design details and CAD drawings with technical approval from the Norwegian Building Research Institute (NBI).





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