

AGRICULTURAL BUILDINGS

From construction to renovation

MR116 / 0117



JORISIDE
THE STEEL FUTURE
MEMBER OF JORIS IDE GROUP



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Agricultural Buildings

From construction to renovation

Joris Ide are the UK's leading manufacturer of steel building materials for the agricultural sector.

With manufacturing facilities in the UK and Belgium, Joris Ide offer a full range of composite wall and roof sheets, metal cladding in pre painted and galvanised steel. Joris Ide prefinished steel has been specifically developed for roof and wall cladding within the agricultural sector. Plastisol & polyester coatings are available in colours specifically developed to harmonise with the rural environment offering good performance at competitive prices.

The choice of colours combined with the roof and wall cladding panels and profiles available, means that a functional yet attractive building can be achieved economically. The availability of Agrivent, Agrilight vented wall sheets and Dripstop condensation control fleece is testament to our dedication to countryside construction and the relevance of Joris Ide products to farm and country buildings.



Jl Onduroof



Jl Eco Panel



Jl Permapan

Design Options

Curving

Many trapezoidal profiles can be crimp-curved to provide special detailing for practical or aesthetic reasons. Self-curving roofs may be accommodated depending on the profile type and curve radius.

Smooth Curving

Joris Ide offers a full range of high strength, low maintenance, curved sinusoidal sheets, available in painted polyester, Leathergrain plastisol and uncoated galvanised steel. Curved sinusoidal sheets provide a cost-effective solution for agricultural buildings and are ideal for use in pig arcs, dutch barns, conveyor covering, storage or silos.

Tolerances/limits:

- The maximum Arc Length we can supply is 6m
- The minimum Arc Length we can supply is 1.5m
- Maximum leg each end of curve is 200mm
- Maximum angle of curve is 180 degrees
- The minimum radii are:
 - 0.5mm steel = 1.7m
 - 0.7mm steel = 0.5m
- Lead time is ten working days from receipt of order (which includes receipt of a completed drawing from the customer)



Crimp-curved



Smooth-curved production



Smooth-curved result

Design Options

Agrivent

Agrivent is a metal wall cladding sheet that has been developed to meet the agricultural industry's need for highly effective ventilation. Agrivent is not limited to agricultural buildings, it can also be successfully specified for a variety of other applications where natural ventilation is required.

Features:

- Available in Plastisol and Polyester in a range of colours, harmonious with the rural environment.
- With louvres on both sides of the sheet, the airflow has been increased to generate greater movement of fresh air.
- The usefulness of Agriclad metal wall cladding sheets is even greater when a roof profile is installed featuring the Dripstop condensation control fleece. This combination of vented walls and Dripstop-covered roof provides an effective guard against the build-up of condensation created by damp and humid conditions, often a problem in buildings that shelter over-wintering livestock.

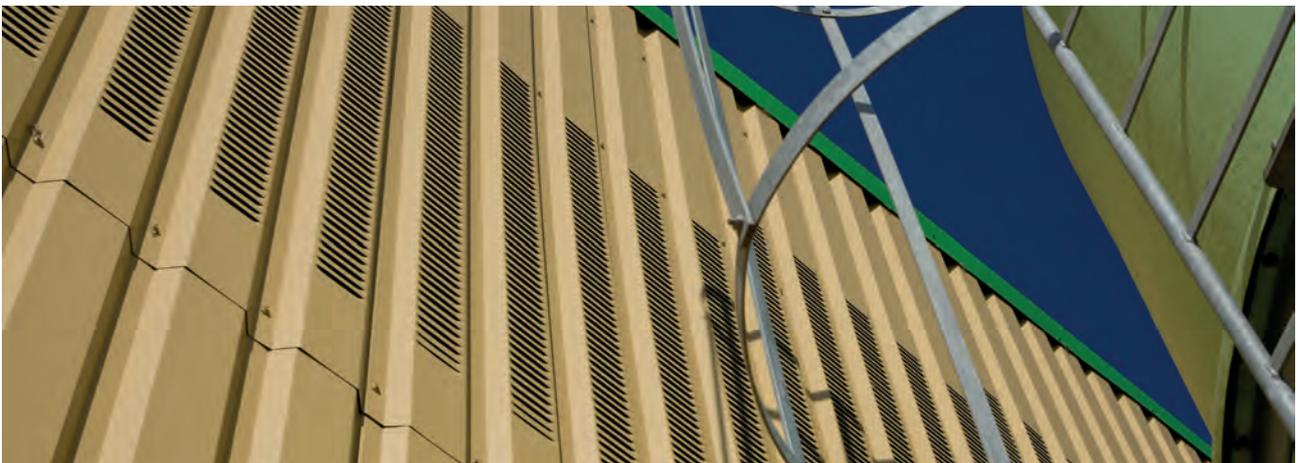
Agrilite

Agrilite is a pan-perforated profiled sheet suitable for livestock and equine buildings, providing natural light and ventilation. Airflow encourages good health in livestock and, as its name suggests, Agrilite provides much higher levels of natural lighting than traditional vented sheets such as Agrivent.

This new product is manufactured from pre-galvanised steel coil, with an external face that is coated two layers of polyester in either Goosewing Grey (10A05) or White (S5900).

Features:

- Exceptional natural lighting and ventilation which improves the well-being of livestock
- Lightweight and rigid
- Exterior available in Goosewing Grey (10A05) and White (S5900)
- Supplied pan-perforated in 19mm profiles in 0.4mm gauge (19/1000L liner profile)
- Designed to blend in with the rural environment
- Rapid, simple installation that is suitable for all new builds and renovations



Design Options

Dripstop

Condensation control fleece lining for single skin metal buildings

The Dripstop condensation control fleece is an effective, affordable and convenient way to deal with the problem of condensation on un-insulated metal roofs. It is a self-adhesive fleece applied to the underside of metal sheets during the profiling process and can be used in virtually any environment where condensation is a problem.

Dripstop absorbs around 1kg of water per square metre of roof, with water being stored in the fleece. When temperatures rise the water starts to evaporate back into the air and the Dripstop fleece dries out.

The fleece is available on 32/1000RSP, MW5R, MW5RS, 38/914R and sinusoidal profiles. Benefits include:

- No dripping condensate from the roof
- No need to varnish or scorch sheet ends (end laps and eaves) unlike alternative products
- Durable
- Easy to clean (with a hose or pressure washer)
- Pre-applied
- Self-extinguishing (rated A2-s1,d0 under EN 13501 – 1:2007)
- Bacteria resistant
- Additional sound insulation
- Rainfall noise reduction

Condensation

When the temperature and humidity conditions reach the dew point, moisture condenses on the underside of the un-insulated metal roof. If there is a lot of condensation, drops of water form and start to fall causing damage to the contents below. The traditional method for dealing with condensation is to try to insulate the roof so that the temperature on the panel never reaches the dew point.

An insulated roof is more expensive than a single skin construction and is not always the most suitable choice. If left unchecked condensate can cause damage to stored goods and materials, worsen insulation capabilities, disturb livestock and related activities inside the building and even damage the roof by accelerating corrosion and allowing frost to form.

When metal roof sheeting is used as a single-skin covering and the outside temperature falls below the temperature inside a building (usually during the night or in the winter) the roof becomes colder than the temperature inside. When warm air inside the building comes into contact with the cold roof panel it suddenly cools down which immediately increases the relative humidity of the air.

When vapour reaches the dew point, condensation occurs. Condensation is the most common form of dampness encountered in buildings. The air inside can have a high level of relative humidity due to the activity of the occupants and when this air comes into contact with cold surfaces such as cold roofs and walls it can condense, causing dampness.

Design Options

How does Dripstop work?

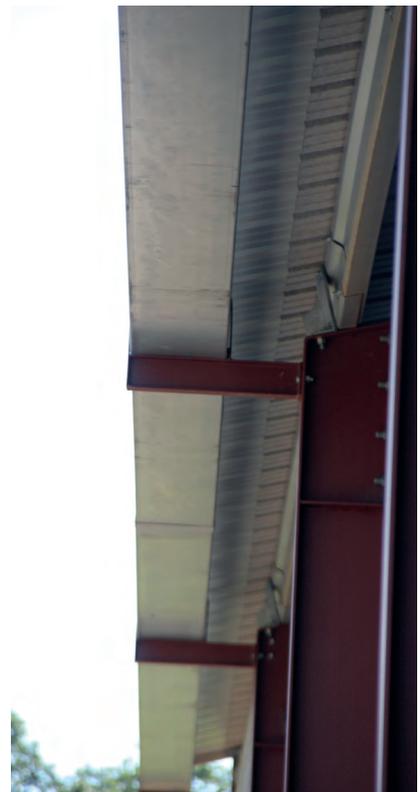
The basic function of Dripstop is to absorb condensed water droplets, letting the water evaporate back into the air when the inside temperature rises. Roofing featuring Dripstop provides a way of trapping condensate in the specially designed pockets formed in the fleece, retaining the moisture until conditions return below the dew point, when it evaporates back into the air. For this process to work it is critically important that there is some air circulation (ventilation) present.

Profiling process

Dripstop is self-adhesive and is applied to a metal sheet before the profiling process using a dedicated application machine which stands between the material de-coiler and the profile manufacturing line. As the production line is running the application machine unwinds and applies the self-adhesive condensation control fleece.

Design and installation

Care must be taken when installing roof panels so that the fleece is not damaged. The roof and its component parts have to be made, constructed and mounted in accordance with UK construction standards.



Design Options

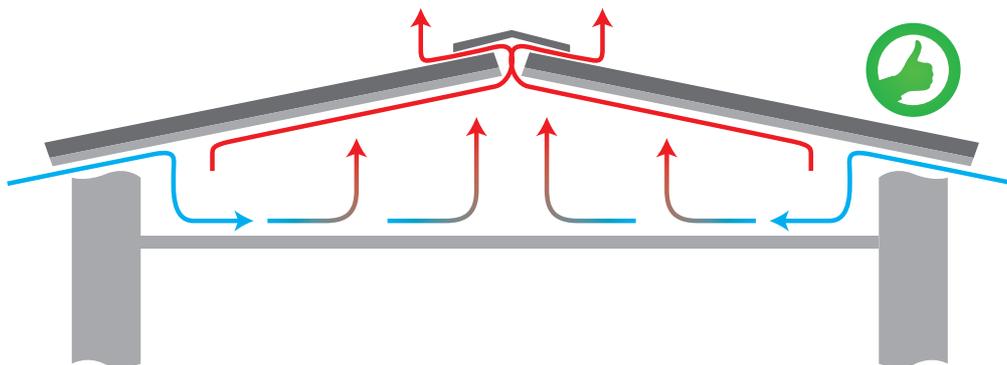
Ventilation

When condensation occurs, Dripstop serves as an absorbing medium, preventing droplets of water from falling from the roof. In order to work properly, the fleece needs to dry out during the day. For that reason, adequate ventilation inside a building is obligatory i.e. cold roof = ventilated roof.

Humid air is lighter than dry air; therefore, it tends to go up. This has to be taken into account when planning the ventilation system of a building. The following situations clearly demonstrate the difference between adequate and inadequate ventilation inside a building.

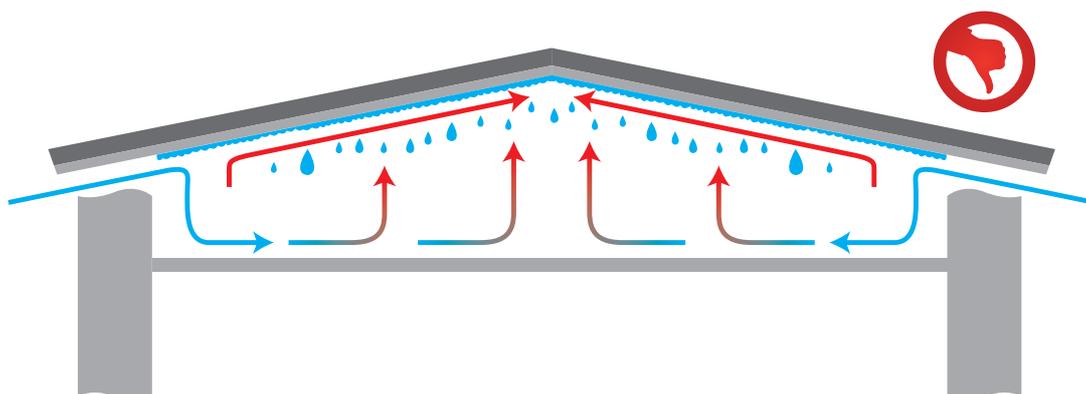
Situation 1

Adequate ventilation in an insulated building with air inflow at the sides and air outflow at the top of the roof.



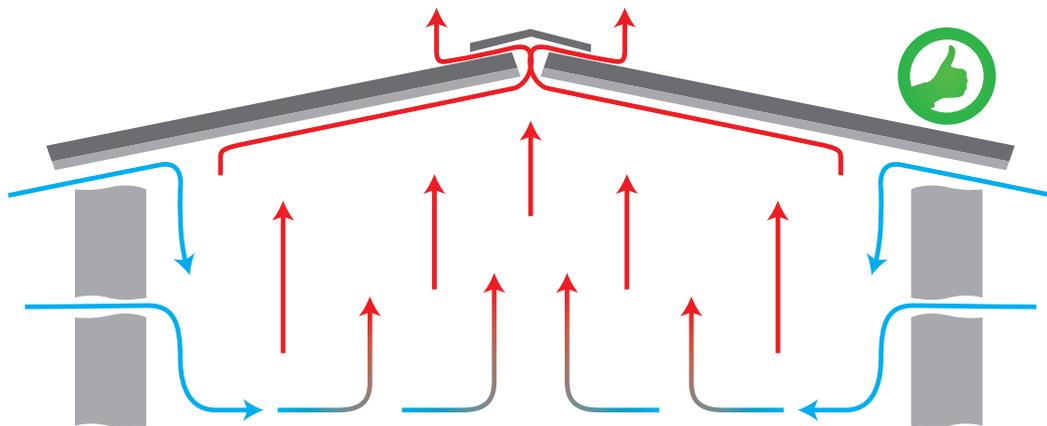
Situation 2

Inadequate ventilation in an insulated building with air inflow at the sides and no air outflow possibility. The result is dripping from the roof which damages the insulation layer.



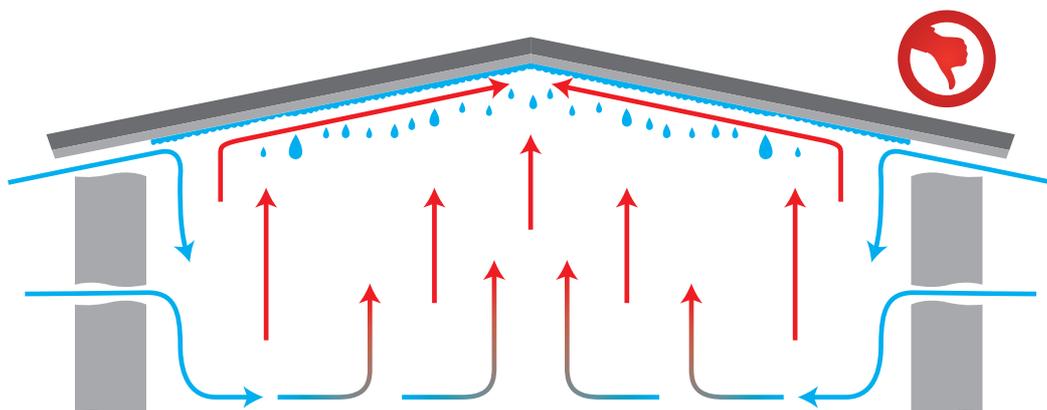
Situation 3:

Adequate ventilation in an un-insulated building with air inflow at the sides and air outflow at the top of the roof.



Situation 4:

Inadequate ventilation in an un-insulated building with air inflow at the sides and no air outflow possibilities. The result is dripping from the roof.



Roof construction

When building a cold metal roof general construction standards should be followed. The following guidance is not comprehensive but it does highlight some of the key considerations:

- Like on any other cold roof, ventilation of the panels has to be provided along the ridge and under the eaves.
- Installing a roof drip edge at the eaves is recommended.
- When covering newly built buildings in which water is still evaporating from fresh concrete works or rough-cast, additional ventilation needs to be provided. Due to very high relative humidity dripping is possible, which is completely normal.
- Do not expose the textile surface to direct sunlight.
- Do not damage the textile surface.
- Before installing the roof panels the Dripstop fleece should be clean and dry.
- The glue is very strong and it is extremely hard to remove the fleece from the metal sheet. If the fleece is removed regluing the fleece will not be possible.



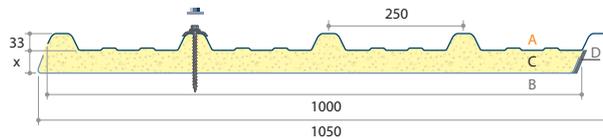
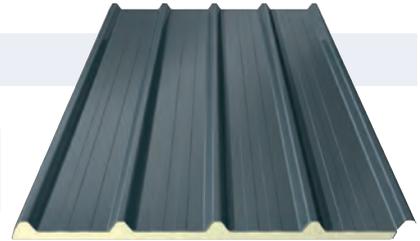
Composite Panels

Joris Ide offers the Rural and Industrial building designer and contractor an extensive range of roof and wall panels. Featuring a number of unique panel systems for application in aggressive environments as found in animal housing.

Diversification has become an important feature of Agricultural life. For many farmers converting farm buildings to holiday lets and accommodation has proved a valuable revenue stream. Joris Ide recognises the opportunity to support this diversification with its range of panel systems including Permapan an attractive roof tile composite.

JI Eco Panel

A value engineered pre painted panel system with a stucco embossed aluminium foil reverse.

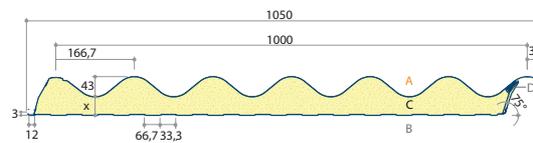


Applications include:

- Crop Storage - Grain, Fruit and Vegetable stores
- Farm Machinery and farm implement storage
- Timber and perishable goods.

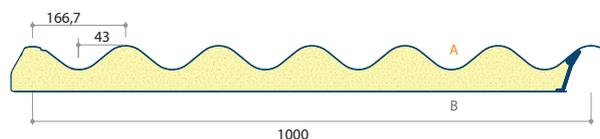
JI Onduroof

A corrugated (sinusoidal) composite roof panel. If you prefer a more traditional looking insulated roof sheet with a steel liner. Then Onduroof is the ideal solution.



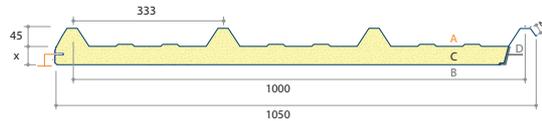
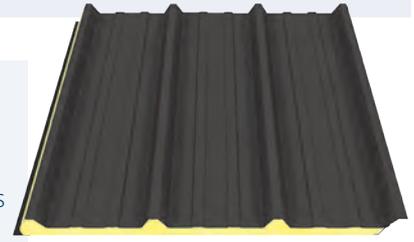
JI Onduroof Eco

A value engineered pre painted panel system with a stucco embossed aluminium foil reverse.



JI Roof Plus

This panel system has been designed for applications where the internal environment may be considered aggressive with high levels of Ammonia, Methane or similar noxious gases are present. The panel has a pre-painted external sheet. The internal sheet is a glass reinforced polyester (GRP) which is easily washed down to maintain a clean environment.

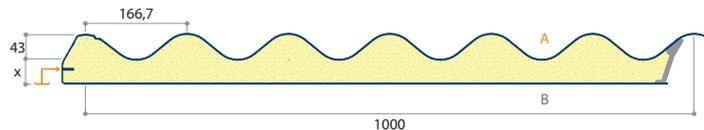
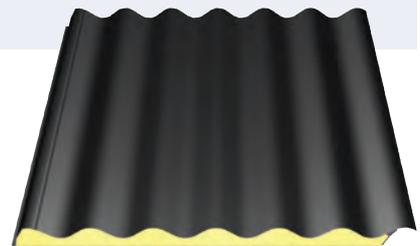


Typical applications would include

- Pig Sheds
- Cattle Sheds
- General Animal Housing
- Buildings with aggressive, corrosive internal environments. Or where storage of materials that are recognised to be corrosive to metal liners, for example, Tanalised timber

JI Onduroof Plus

Offers the traditional corrugated (sinusoidal) profile with the features and benefits of JI Roof Plus.



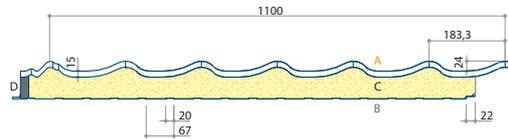
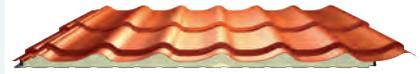
JI Roof Plus and Agrivent



JI Onduroof Plus

JI Permapan

This panel offers the building owner a strong impermeable insulated metal roof tile system. It is an attractive option, perfect for consideration when conversion or refurbishment of farm buildings is being considered.



- Workshops
- Garages
- Barn Conversions
- The system would also offer a cost effective insulated roofing system suitable for Lodges, Cabins, Chalets or Summer Houses
- Static Caravans
- Portable Accommodation Units

Alternative internal linings of composite panels are available including Foodsafe steel liner, suitable for intermittent food contact.

Colorfarm, a pre painted steel liner designed for aggressive internal environments which is available with a 15 year guarantee.

To compliment our range of panel and built up systems, Joris Ide offers a full range of flashings as well as purlins, rails, roof lights, fixings and sealants.

For Industrial applications Joris Ide offer a full range of insulated roof and wall panels available in various coatings. Please refer to full product range and Coloflow brochures.



JI Permapan detail view



JI Permapan



Roof and wall cladding



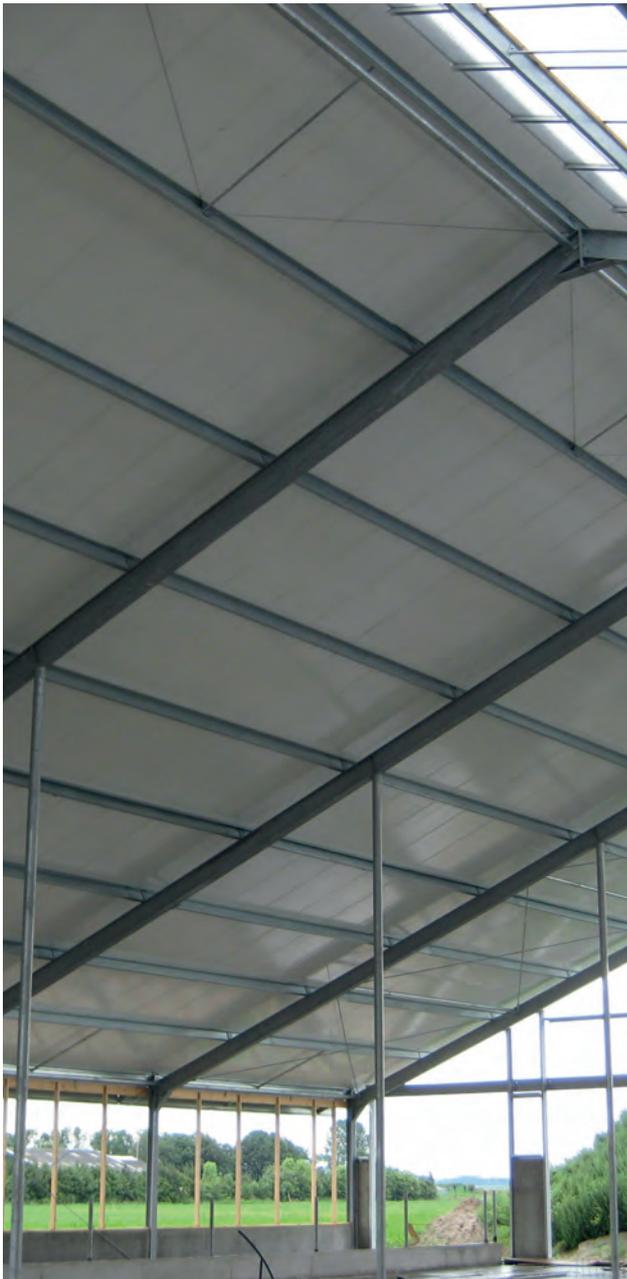
Dripstop



JI Ecopanel and Agrivent



Jl Onduroof



Jl Onduroof Plus



Ventilation trough perforated cladding



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