

The Drying Skirt Installation Guide

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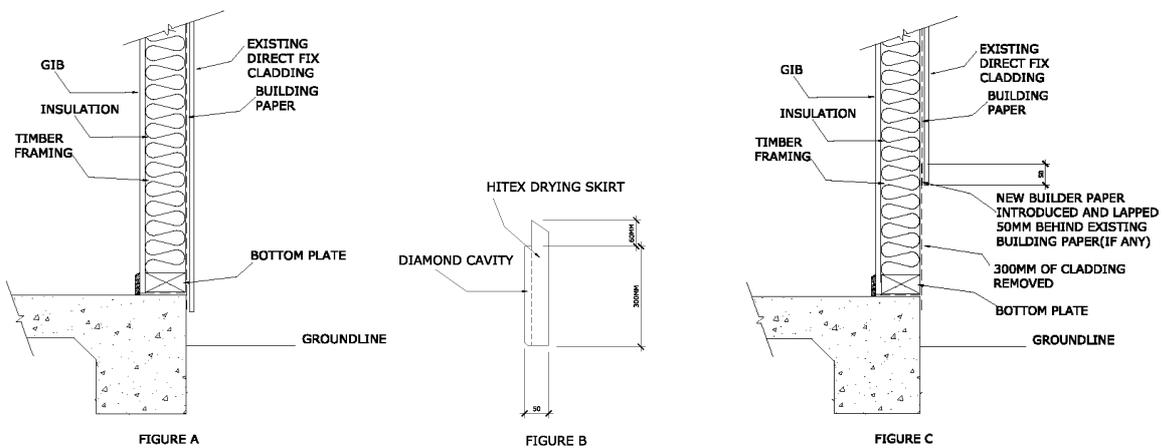
Drying Skirt Installation Guide

Description:

The “drying skirt” is a pre-plastered waterproof moulding or plinth (patent pending) with an integral drainage cavity. The drying skirt is principally a device fitted to areas around a building to change the wall design allowing drying to occur and water to drain out. The drying skirt is particularly useful when retrofitted to walls in areas where water is known to accumulate. The drying skirt involves removing portions of the existing cladding from key locations around the building to allow ventilation, drainage and drying forces to be increased to accelerate drying. The drying skirt enables the bottom plate or boundary joist to be exposed so that it can be both examined for structural integrity and/or have treatments and preservatives applied to kill or reduce the rate of fungal growth during the drying process. It also enables the verification of a pressure injected boron treatment process (Rotstop: patent pending.) This will also assist in protecting the building from future fungal and borer attack.

Figure A is a typical New Zealand wall construction. Air cannot ventilate or dry out the framing. Currently technical experts require the entire cladding to be removed and replaced once drying has occurred. The drying skirt offers an alternative to this.

Figure B shows a drying skirt with an inbuilt cavity (dotted line) allowing air to vent behind the drying skirt whilst waterproofing the wall. The cavity also allows moisture to drain rather than accumulate at the bottom plate.



INSTALLATION:

NB: Any works involving the removal of any parts of the exterior cladding require a building consent.

Step 1:

Seek advice from an independent engineer / expert in determining location of bracing loading, fire rating and sound control.

Step 2:

Determine readings from all moisture probes.

Step 3:

Remove approx. a 300mm strip of existing cladding from around the bottom plate or boundary joist (ensure once drying skirt is installed that there is a 60mm overlap to the floor and 40mm overlap onto the existing cladding above. Refer to **Fig. D**) Allow 10mm extra for cut variations. Check the existing cladding ground lines as some walls may have different overlaps.

This removal enables sampling and inspection of these areas. Where damage has occurred review of the structural integrity can be undertaken. Repairs can be made where needed. With the strip of cladding removed drying can occur and Rotstop treatment can be verified. At a given time, the drying skirt can be fixed in place (**Figure D**) provided any relevant penetrations and terminations have been sufficiently sealed. A site measure would

determine the drying skirt profile in each location. Temporary water proofing is required to seal the removed cladding areas.

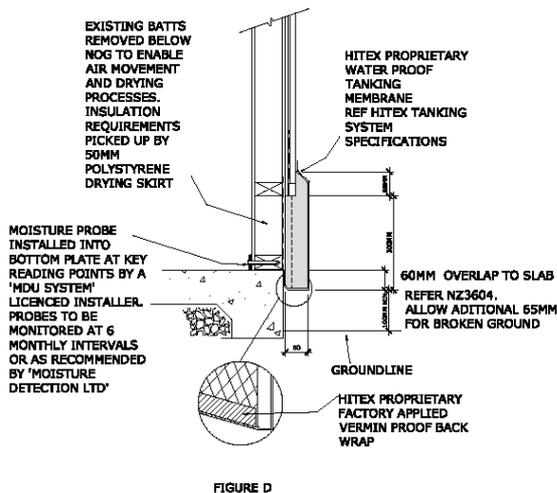


FIGURE D

Waterproofing and sealing is then undertaken and the drying skirt overlaps the framing base plate in a waterproof manner (suggested at least 60mm). The sealing to the existing cladding is by tanking and plastering across the bevel and at least 50mm up the existing cladding to a precise termination line. Glue shall be polymer modified plaster or SOLVENT FREE to attach the drying skirt in place. Fixings shall be 90mm galvanised nails with 18mm washers at 300mm centres along the bottom plate and at stud. Alternatively 75mm galvanised screws may be used. The drying skirt is then plastered to the desired texture and colour. It is important to focus on the

straightness of all external edges providing a high quality finish. Moisture readings must also be taken at the conclusion of the installation.

In normal circumstances the bottom plate is being wetted from leaks above. As the bottom plate dries by ventilation, water (that has accumulated higher up the wall) is free to redistribute down through the framing to the bottom plate which is then able to dry (and the drying process continues).

The drying skirt remains in-situ and continues to function for the remainder of the life of the building assisting in drying out any future leaks and balance the seasonal changes in timber moisture levels.

It is valuable to monitor the moisture content of the timber after the drying skirt is installed. If the moisture levels do not decline this would indicate the presence of leakage further up the wall. This drying process would more readily identify the areas where leaks are occurring. **Fig. D** shows a variety of methods to monitor the moisture content of the framing (patents pending). This can be done by either installing a loom moisture detection

device before installing the drying skirt or later by installing moisture probes from the inside or through the skirt itself. These are commonly referred to as *Early Warning Detection Systems (EWDS)*

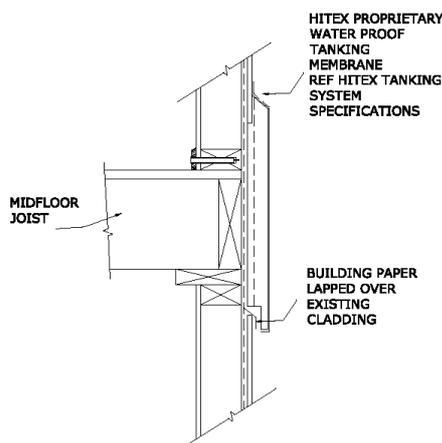


FIGURE E

Moisture also accumulates in two storey buildings (or 3 or more storeys) at timber concentrations at the mid floor boundary joists. **Fig. E** shows the drying skirt modified to fit this position on the building. The thickness of the drying skirt may vary depending on the thickness of the cladding to ensure ventilation and waterproofing can occur. This drying skirt will allow for a certain amount of construction movement where the drying skirt overlaps the cladding to the lower floor if the building settles as it dries out. Similarly designer drying skirts can be fitted above window flashings, decks and roofs to dry out lintels, around deck membranes

and balconies in conjunction with roof aprons and flashings. When repairing deck membranes the entire lower part of the cladding should be removed to correctly install new membranes or attend to membrane repairs that are lapped a minimum 150mm up the wall. The Drying Skirt offers the added advantage of allowing drainage and drying to occur once any repair is complete.

July 2008