

# Slating & Tiling

## TIPS81

### Diminishing spaces

The external elevations as shown on an architect's drawing can look very clean cut with lines meeting exactly at intersections, giving the appearance of precision and style. But in reality things are never that precise. For instance at the intersection point between two hip lines and a ridge, the ridge is rarely at the same level.

The same goes for slates or tiles installed in close proximity to a soffit or fascia board, especially around a dormer. The draughtsman can draw it but often it can be difficult to impossible to construct, as there is no room to swing a hammer, or twist a screwdriver. In these situations what should you do? Use common sense.

#### Side abutment

On a dormer the side abutment construction starts off quite conventionally and as it gets closer to the valley the construction gets more and more difficult. If there is no soffit then it is possible to fix the top three courses of slates or tiles to the battens that finish on the last rafter under the valley, through the rafter feet of the dormer, which is not as easy as it sounds. Once the soffit board is installed, that option is removed making the installation of the top slates or tiles almost impossible.

With tiles that have nibs they are often not nailed, but with slates this is not an option. Even where there is a soffit, and always where there is no soffit, the point at which the soffit and roof covering meet are ideal locations for birds to nest, and it is often impossible to reach in to install a lead flashing. If there are open rafters then the diminish space can disappear up under the valley into the roof void giving rats and mice a route into your loft.

Once the diminishing space drops to a height of about 300mm it would be better to stop slating or tiling and to box out the corner with a vertical return, out to the line of the dormer

fascia board, and install a triangular infill up to the fascia board, or tilt fillet.

With open rafters the boxing in should coincide with a rafter position to make fixing the timber work easier. This moves the side abutment close to the valley out to the fascia board line, making it easier to fix the slates or tiles, and making the flashing at the base of the valley easier to integrate into the slates or tiles. The boxing in can either be clad in the same material as the dormer, or if you are feeling rich, lead sheet, and incorporating the side and top edge abutment flashings.

#### Vertical

Where there is a horizontal soffit board at the eaves it is possible to take the vertical tiles or slates up to the soffit and finish with a lead cover flashing over the nail fixings. In some instances the tiles and slates can be fixed before the soffit is installed and the nail fixings hidden by the soffit board, but this causes problems for fixing the back edge of the soffit.

With open rafters finishing the tiles or slates up between the rafters is a nightmare as the rafter centres never coincide with the module of the tiles or slates, and short lengths of batten are fixed to noggins, as there is nothing to fix them to above the wall plate. If the tiles or slates can be installed before the fascia board is installed then things are easier, but once the fascia board is installed nailing or screwing the top three courses of tiles or slates is almost impossible.

The better solution with open rafters is to install the tiles or slates as high as possible and to fix timber boards between the rafters, on noggins fixed to the sides of the rafters, to lap over the heads of the vertical tiles or slates and cut in under the rafters if they come that low. The tops of the timber boards should finish level with the top of the rafters. If low level ventilation is needed it is possible to fix a ventilation



If you look up the side abutment you can see the white underlay and a gap up through which rats and mice can climb.

strip along the top of the timber board before it is installed, provided the grill does not protrude above the upper level of the rafters. This detail avoids the need for a lead flashing to cover the top course nail fixings.

#### Barge boards

A similar situation can occur where vertical tiles or slates meet the gable ladder of the roof. Sometimes there is a wide overhang giving plenty of room to install the additional nail fixings for the cut tiles and slate. But often with a narrow barge board the tiles will need to be cut around the gable ladder just behind the last rafter.

In this instance the best solution is to remove the barge board, form a raking or Winchester cut, whichever is appropriate, at the line of the gable ladder, and reinstall a wider barge board to cover the last 50mm of the raking cut. If the gable ladder is close but not tight, a soffit board screwed to the underside of the gable ladder will be needed to stop birds and bats gaining entry to the roof void between the vertical tiles and the bargeboard.

#### Conclusion

Diminishing spaces at edges and junctions are a challenge to construct, and will require some carpentry work if it is not possible to undertake the slating and tiling before the fascia, soffit and barge boards are installed. Even when they are installed, fixing the ends of the soffit boards and lead flashings can be difficult unless the junction detail is identified and integrated at an early stage of the roofing process.

#### Tips

- To fix slates or tiles you need enough room to swing a hammer or twist a screwdriver.
- Diminishing spaces up under soffits are ideal places for birds to nest so they should be eliminated by being designed out.
- Cutting tiles or slates in around rafter feet where there are open rafters is difficult, and should be designed out by using vertical boards between the rafters.

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