



# Technical Bulletin #20

## FASTENING OF BATTENS AND COUNTERBATTEN SYSTEMS

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In most climates and conditions, the code prescribed, minimum requirements are adequate for the attachment of battens to the roof deck. There are however, a number of circumstances that warrant more attention to how and where the battens are attached depending on how much weight and stress they will be subjected to. Steep sloped roofs where the battens will be used to support foot traffic during the roof installation will generally require better attachment than lower slope roofs. Likewise, roofs that are fitted with certain types of snow retention devices may require enhanced fastening depending on roof slope and expected snow loads.

The simplest method used to increase uplift or withdrawal resistance is to fasten the battens through the sheathing and into the rafters. In most cases, an 8d or 10d nail will provide adequate attachment although, in severe circumstances such as steep slope combined with snow load, double fasteners or screws may be required.

Rafters should be spotted prior to underlayment application to ensure proper fastener penetration. This can be done simply by marking the underlayment as each course is installed by crayon or roofing nail over the rafter. Once the underlayment is installed the battens or vertical strapping may be fastened securely to the rafters.

Another method that may be used when the counterbatten system is employed is to attach the vertical strips over the rafters prior to the underlayment. With this system, it is recommended that special, tear-resistant underlayment be used to avoid damage from step-through during the tile application.

The fastening of battens to the rafters ensures a good, long-term attachment that will prevent tile slippage or roof leaks as the roof ages.