

Planting Pitched Roofs

Extensive and Biodiverse roofing systems can be planted on roofs of varying pitches, with pitches of up to 45° generally being accommodated with standard system. Pitches greater than this, all the way to vertical, can be 'greened', but will need bespoke system design to suit the application and may be easier to achieve using ground grown planting.

Pitched warm roofs are the ideal candidates for planting, as pitched cold roofs will require ventilation between the thermal insulation and the pitched roof decking, resulting in the need for a venting system at the ridge. This venting system will differ to standard pitched roof ridge ventilation, as it is required to be above the finished roof/plant level.

The principle difference between planting on a flat roof and planting on a pitched roof, is the requirement for special measures to resist the thrust load and sliding of the planting system. This is generally achieved by using thrust battens, typically consisting of a 60 x 100mm cross section timber, with a maximum moisture content of 16% by weight. The thrust battens are secured to the structural deck and weatherproofed, with cover flashings welded to the finished roof surface.

Depending on the roof pitch the thrust battens will be installed between 3 to 6 metres apart. The first thrust batten should be positioned approximately 500mm below the ridge line. The balance of the thrust battens will be installed at the required spacing, starting from the first batten. Horizontal run of the battens should be broken every 6 metres, by leaving a 200mm gap to allow for drainage. Each run of battens should have the drainage gaps staggered in a brick bond pattern. The number and spacing of the thrust battens will vary, according to roof pitch and are typically:

- 8° to 18° roof pitch, install battens every 6m
- 18° to 25° roof pitch, install battens every 6m every 5m
- 25° to 35° roof pitch, install battens every 6m every 4m
- 35° to 45° roof pitch, install battens every 6m every 3m