

Lightweight,
Enduring and
Attractive Roof Systems

Steel Batten and All-Steel Roofs

An attractive, low-cost alternative to timber



The AHI Roofing Solution

In many countries around the world, the use of a steel batten substructure for roofing is common, particularly for industrial buildings in the West, and in residential housing in countries like the Philippines and Thailand.

THE LOW-COST ALTERNATIVE

■ Steel Battens are an attractive lower-cost alternative to using timber battens. In addition, Steel Battens still use traditional installation methods.

AHI Roofing has developed specific techniques to ensure that its pressed metal tiles can be used equally with either steel or timber battens.



THE AHI ROOFING SYSTEM

■ AHI Roofing pressed metal tiles can be fixed directly to steel substructures totally eliminating the use of timber. The all-steel roof is leading the way to the future.

Other roofing products are often ill-suited to installation over steel battens. For example, the building paper or insulation foils are not easily accommodated. Composition shingles are often glued or nailed directly onto the substructure with no supporting batten system. Similarly, if concrete tiles are not individually fastened they can break off and pose a danger to people and property below. AHI Roofing Systems are quickly and securely fastened – they interlock at eight points per tile to eliminate danger.

TABLE 1. NOMINAL BATTEN SIZES

RAFTER OR TRUSS CENTRES	Recommended Thickness Steel Batten RB40 and top hat types
RECOMMENDED	
Up to 900mm	0.45mm
1200mm	0.55mm

BENEFITS OF AN ALL-STEEL ROOF:

- With a steel substructure, battens and tiles, you know you have found a permanent solution.
- Steel is lightweight and strong and will not rot or be affected by termites.
- Steel Battens and tiles are far more fire resistant than timber.
- Steel battens, being straight edged, eliminate the warping or curvature often associated with other battens.
- Total compatibility in roofing materials.
- Prefabricated assembly keeps labour costs to a minimum

Steel battens are easily and permanently fixed to steel roof trusses either by welding or using bolts. The combined use of steel rafter, battens and roof tiles means you have total compatibility of material types, so you will not get a chemical reaction that can occur when you link non-similar materials together (provided that welding is done correctly and is protected afterwards).

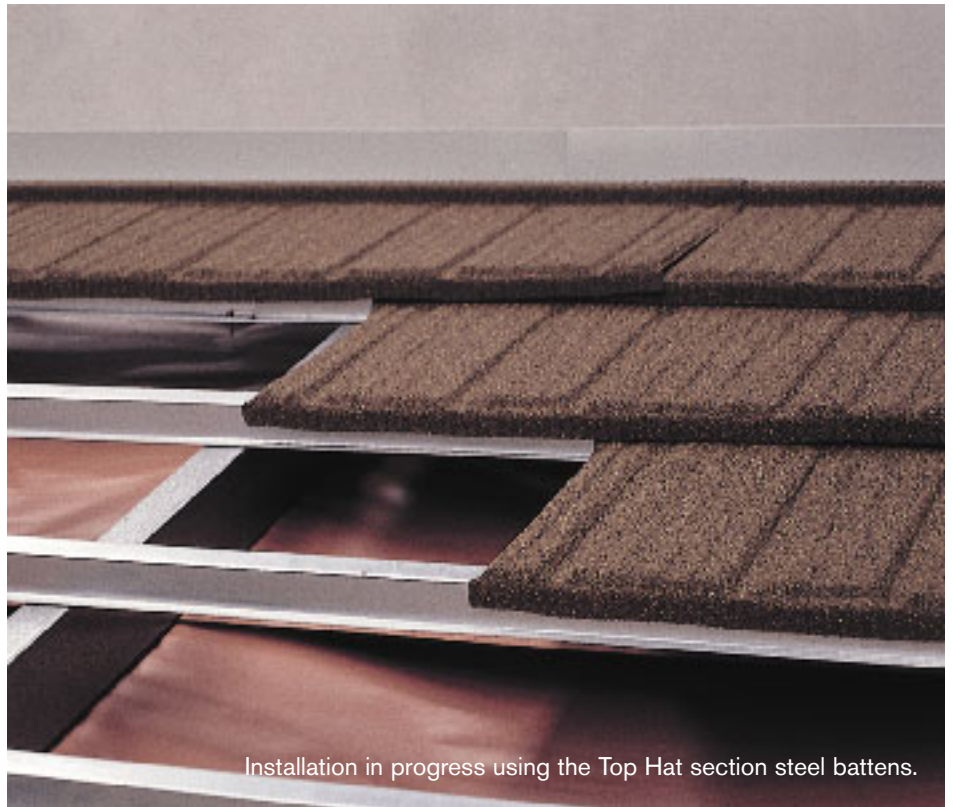
In an age where prefabricated assembly is desirable, the all-steel solution from AHI Roofing is the perfect solution, keeping labour costs to a minimum.

AHI Roofing Systems are permanent and reliable - approved by testing laboratories and appraisal authorities worldwide.

STEEL BATTEN DESIGN

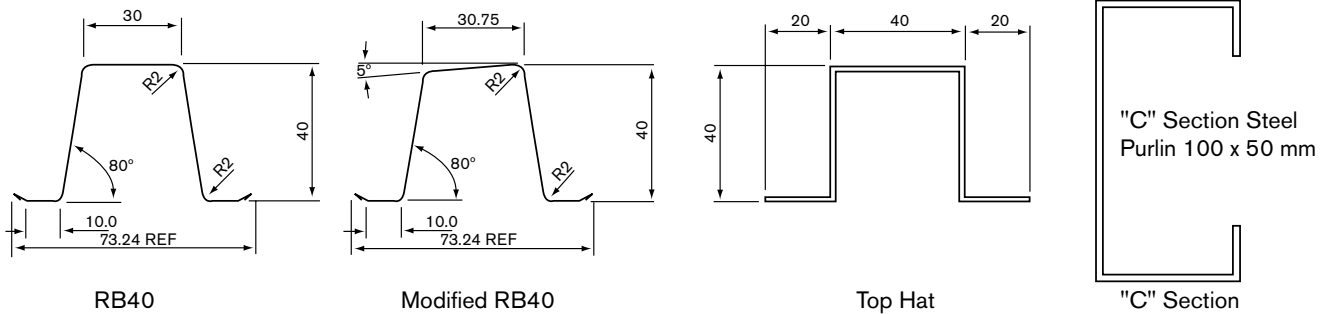
The steel batten designs vary but they all must meet the following criteria:

- The roof ties must be able to be securely fixed to the roofing structure and withstand the local climatic conditions;
- The steel battens must be selected so that the AHI Roofing tiles or panels are supported along the front edge and can be securely fastened back to the batten;
- The batten design must meet local building codes and/or requirements;
- The steel gauge is dependant on rafter spacing.
- In most circumstances, steel battens are produced in galvanised or aluminium-zinc coated steel.

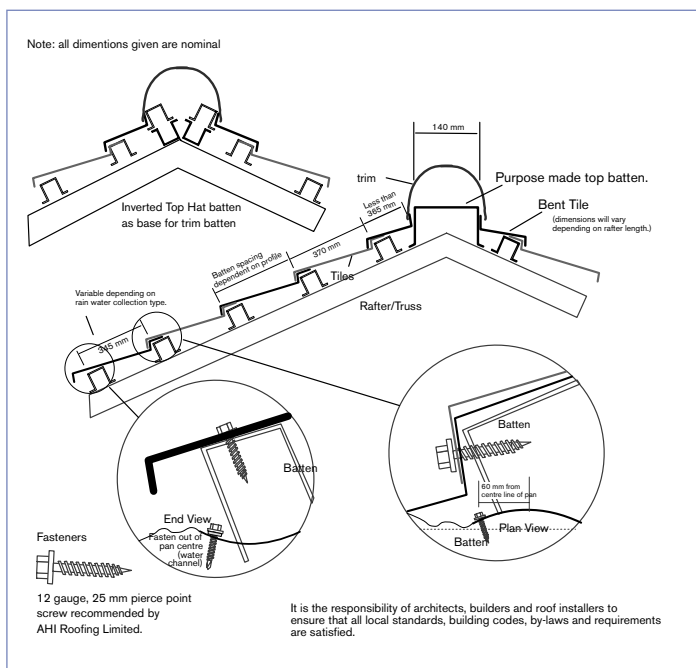


Installation in progress using the Top Hat section steel battens.

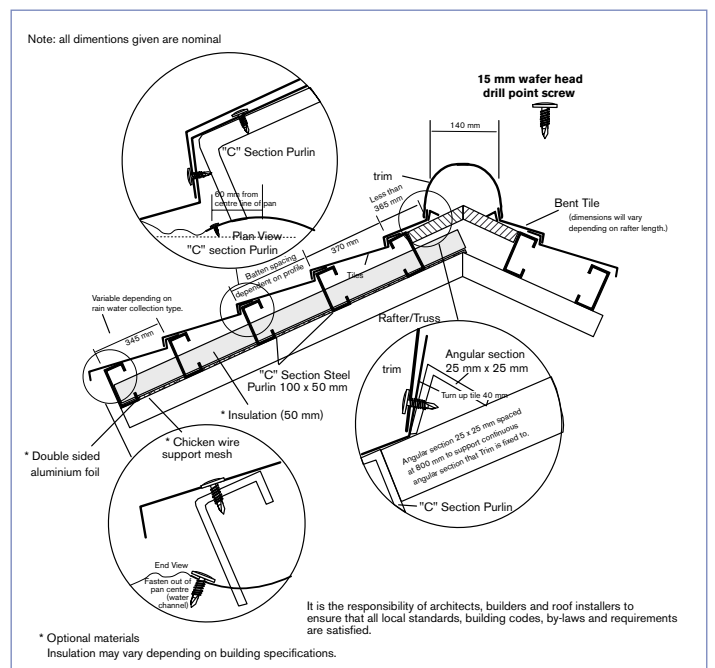
The most typical profiles for the batten design are either 'C' sections or Top Hat sections, and some examples are shown below:



INSTALLATION OF TILES USING TOP HAT BATTENS



INSTALLATION OF TILES USING 'C' SECTION PURLINS



Installation solutions

AHI Roofing Fasteners are specifically sourced for installing tiles or panels over decking or on to steel battens.

■ The fastening screws have been tested to ensure they will drill into the typical materials used when installing an AHI Roofing System. They meet the requirements for corrosion protection of AHI Roofing Limited and AS 3566 Class 3.

AHI Roofing Systems can be used over steel batten substructures to create impressive residences and commercial buildings alike.



AHI ROOFING AT A GLANCE...

- Lightweight and strong.
- Can be installed on to steel or timber battens.
- Easily installed on a simple frame or structure.
- Engineered to be safe in strong winds.
- Variety of colours and textures.
- Tile, Shake or Shingle profiles.



AHI ROOFING SYSTEMS. THE SIMPLE SOLUTION.

AHI Roofing is the world leader in the development, manufacture and marketing of stone-coated steel roofing materials which provide safety, security and peace of mind in the most extreme environments and weather conditions.

ENDURING ROOF SYSTEMS. Crafted in nature's image. Manufactured to the highest international standards.

AHI Roofing is registered to ISO 9001 which recognises the quality management systems standards now accepted in more than one hundred and fifty countries. This certification recognises the commitment of AHI Roofing to quality, productivity, cost competitiveness and customer satisfaction.

TESTED AND PROVEN.

AHI Roofing systems have been tested and proven under a wide range of extreme natural conditions. Copies of test reports and appraisals are available from your AHI Roofing distributor.

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