Concealed-Fix, Secret-Fix and Standing Seam Cladding



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Technical journals, manufacturers' data sheets and brochures regularly make reference to these three titles and often mix them in a single sentence which has resulted in a certain amount of confusion and begs the question - what is the difference?

When metal cladding was first introduced into Europe it was in the form of flat sheets which formed a weatherproof cover over a timber sub-structure (supported cladding). The side and end laps of individual sheets were folded over on themselves and then flattened to form a weatherproof seal as seen on metal clad domes etc. Over time it was found that if the longitudinal seams were left upright and the depth of upstands seam profiles produced regionally by a number of specialist contractors plus two self-supporting profiles sold nationally. In essence a standing seam profile comprises a broad pan with narrow upright mechanically seamed side laps that encapsulate an anchor cleat or halter.

In the broad sense concealed-fix(ed) or secret-fix(ed) cladding is any type of cladding where the means of anchoring the cladding to the supporting structure are not visible from the outside. Profiles range from a conventional pierced-fix box rib profile with a clip-on cover strip that conceals the heads of the fasteners, direct fixing through a concealed flange, a spring

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seal and control of rainwater runoff. Hence the name standing seam. With the transition from supported to self-supporting cladding, corrugations were introduced to provide the structural properties of the cladding. Following the development of the continuous rolling process, trapezoidal ribs were introduced which resulted in stronger and more efficient profiles. The side laps in all

over on themselves

achieving a more

and thereby

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There are numerous manufacturers in Europe and North America producing traditional standing seam profiles i.e. single pan with narrow upright longitudinal seams, most of which are mechanically seamed. In South Africa there are supported standing

modern cladding profiles are technically

standing seams.

action clip through to an encapsulated clipover cleat or halter.

In essence, except for some minor variations, it is a case of 'a rose by any other name...'

The current everyday understanding of these titles is:

- 1. Concealed-fix or secret-fix is any profile where the anchoring system is not visible, which provides unrestrained thermal expansion or contraction and does not require any form of mechanical seaming.
- 2. Standing seam is any profile where the anchoring system is not visible, which may or may not provide unrestrained thermal expansion or contraction and does require mechanical seaming.
- 3. On an historical point Secret Fix was a patented system marketed by H.H. Robertson (Africa) (Pty) Ltd circa 1980 which comprised a pierced-fix deep box rib profile with a clip-on cover strip that concealed the heads of the fasteners.