

# SAFLOK™ CONCEALED FIX ROOF SYSTEMS – ENGINEERED TO PERFORM

Today's trend for sustainable designs that reduce environmental impact is helping to drive the metal roofing market to new heights.

In large-span metal roofing applications, concealed fix roof systems are the only choice.

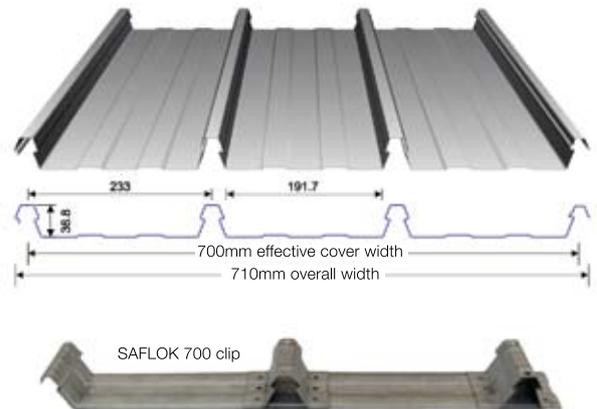
In these applications, with the size of investment concerned, engineering performance of the entire roof "system" is critical. It will enable specifiers to reliably serve the long-term interests of their clients and reduce liability for all concerned.

In concealed fix systems, sheets are fixed to the purlin with a clip system and are not pierced with any fasteners. The clips serve two purposes – they circumvent the need for holes in the sheet (which prevents the possibility of leakage through the perforation), and they allow the roof to expand and contract in a sliding movement over the clips.

Because the sheets can slide over the clips, they can be rolled in long lengths which can thermally expand without restriction. If the sheets were positively fastened through the sheet into the purlin, the fasteners would take the brunt of the force of expansion, and would tear larger holes in the sheet or shear off. Consider that coated steel expands at a nominal 1mm per 1m, and it is apparent that a sheet of a mere 15m will move by 15mm in heat. It is common best practice to not install a pierced fix sheet in lengths of more than 15m for this reason. Over 15m, a pierced fix sheet should be end-lapped to allow for thermal cycling.

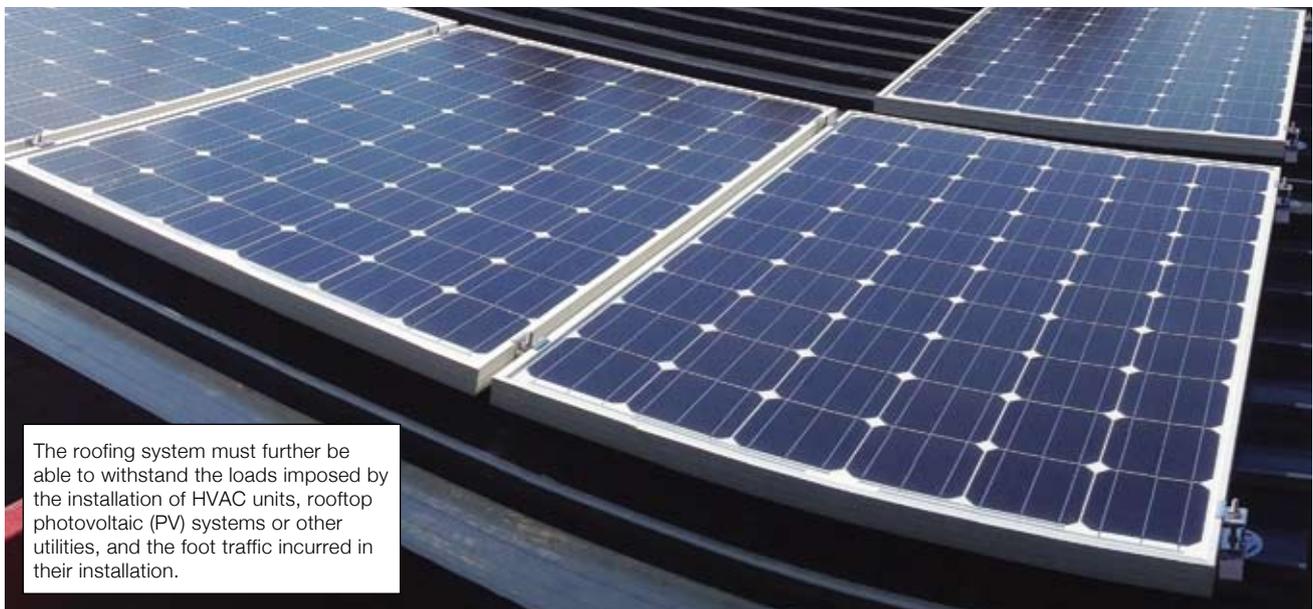
A concealed fix system allows sheets to be rolled in continuous lengths up to 120m or more. The lack of end laps further helps to reduce the risk of leaks.

The first distinguishing characteristic of a concealed fix roof is the profile, which is both aesthetic and functional. For low-sloped roofs, one is looking for a defined rib, with a wide, deep pan to deliver excellent water run-off at slopes as low as 2 or 3 degrees. The height of the rib is important as it also provides structural strength, acting rather like a mini I-beam.



Interlocking clips incorporate two anchors to clasp the inner ribs, and a double-action gooseneck to positively engage the male/female overlap.

Of equal concern is the design of the clip, as this is the "anchor" securing the sheet to the substructure and holding it down in high winds. The material and thickness of the clip helps to determine its inherent strength, which in turn helps to determine the minimum wind-uplift resistance requirements for a particular roof.



The roofing system must further be able to withstand the loads imposed by the installation of HVAC units, rooftop photovoltaic (PV) systems or other utilities, and the foot traffic incurred in their installation.



**SAFLOK 700<sup>®</sup>**  
concealed fix roofing

# LOCKS DOWN YOUR ROOF

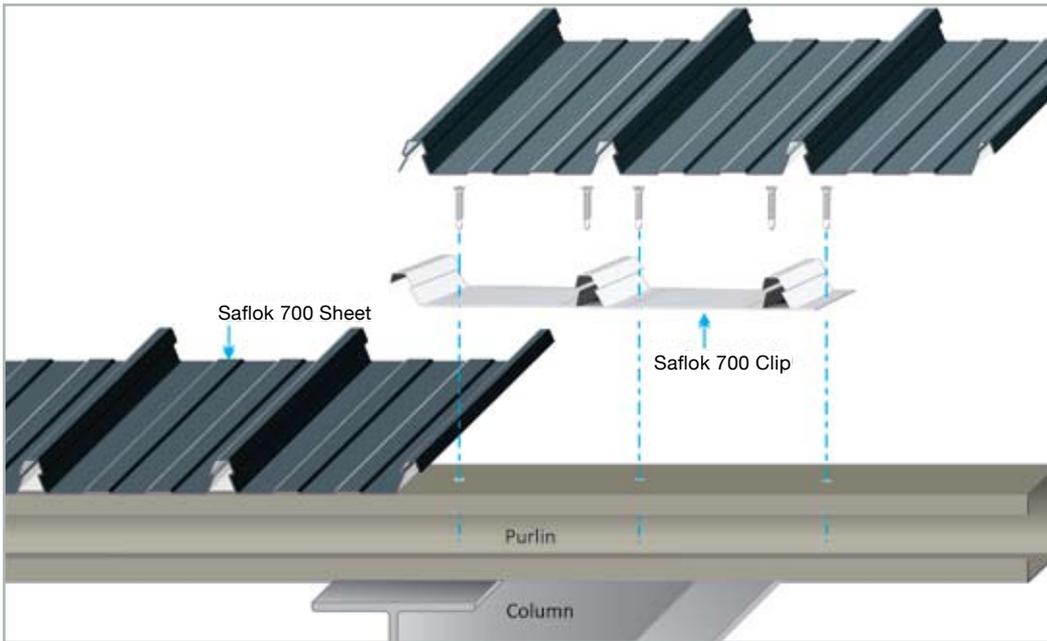


## The most advanced wide-coverage concealed fix system on the market

- Cover width of 700mm per sheet for fast, cost effective installation
- Re-engineered clips ensure superb sheet engagement at every rib, and total stability at the male-female lap
- Deep pans for excellent water run off, even at 2 degree pitch
- Saflok components include detailing for high wind loads and structurally challenging installations
- Can be rolled on-site in lengths up to 120 metres

**South African operations:-** Johannesburg, Cape Town, Durban, Port Elizabeth, Polokwane, Nelspruit & Bloemfontein. [www.safintra.co.za](http://www.safintra.co.za)

**Additional operations in Africa include:-** Namibia, Botswana, Mozambique, Malawi, Zambia, Angola, Tanzania & Kenya, amongst others. [www.safintra.com](http://www.safintra.com)



The overall “system” design defines the manner in which the clip locks into the sheet profile. The clip should engage every rib of the profile to prevent wind cushioning under the unsecured rib, and distorting the sheet off the clip. Generally, the more ribs that are secured with a positive clasp holding

it to the purlin, the stronger the wind-uplift resistance. If not positively secured, the ribs should be shaped to provide a strong and stable interlock with the clip at every point.

A complete system will also offer a high wind load detailing for particular terrain categories or design parameters such as wide overhangs.

Saflok™ concealed fix roofing is one of the most widely specified systems available. The precisely engineered clip and the dimensional consistency of the Saflok profiled sheet provide a robust and reliable roof system. Over 10-million square metres are installed in South Africa alone –performing for the investor and proving its worth.

As a professional, you should demand full technical details of the system you intend to specify – and request technical support throughout the installation itself.

Safintra is proud to offer this service free of charge to all its customers from seven branches countrywide. The company has recently opened an office in Bloemfontein and an agent is now appointed for Namibia, operating from Windhoek.

South African operations are in Johannesburg, Durban, Cape Town, Polokwane, Nelspruit, Port Elizabeth, Bloemfontein and Namibia.

Further operations are in Mozambique, Zambia, Malawi, Tanzania, Kenya, Angola, Uganda and others. **WR**



Safintra Roofing & Steel  
 Tel: 011 823 4027  
 Fax: 011 823 4288  
 Email: [info@safintra.co.za](mailto:info@safintra.co.za)  
 Blog: <http://safintraroofting.wordpress.com>  
 Website: [www.safintra.co.za](http://www.safintra.co.za)

