PRODUCT DESCRIPTION & FEATURES

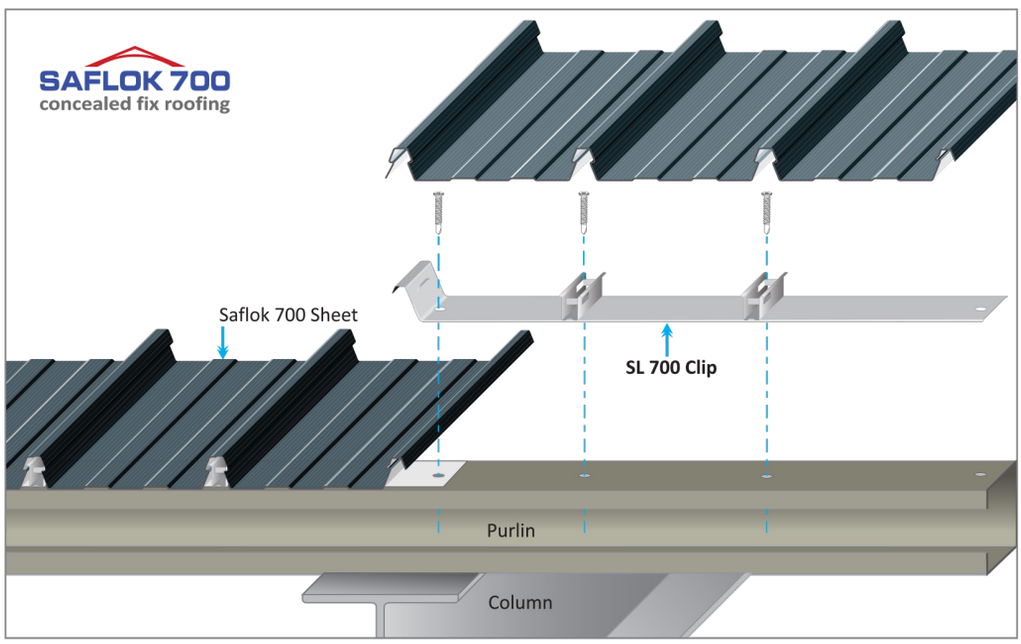
Concealed-fix roofing, also referred to as secret fix, is designed for very low pitched roofs. Because clips under the sheet hold it down, the sheet is not punctured with fasteners, and remains completely watertight even at a very low slope. The securing clips are pre-fixed into the purlins and the sheet is mechanically snapped onto the clip.

A concealed fix sheet can also expand and contract over the clips as the temperature changes, this system is ideal for long spans on industrial, commercial and retail buildings.

The Saflok 700® concealed fix roofing system is an interlocking trapezoidal rib profile that can be rolled on site in lengths of up to 120 metres.

Saflok 700® may be rolled in Aluminium - Zinc coated steel, (bare or colour coated) or Aluminium (Mill Finish or G4 Colortech).

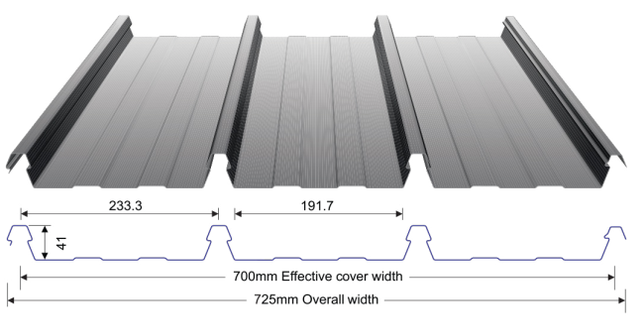
On high slope roofs, the aesthetics of Saflok may be affected by occasional oil canning in the pans. This becomes visually apparent on slopes greater than 5 degrees, as the roof material becomes increasingly visible. It does not affect the structural integrity of the sheet in any way, and ALAF will not entertain claims made for oil canning.



SAFLOK 700 CLIP

The fully interlocking SAFLOK 700 clip incorporates two anchors to clasp the two inner ribs and a dual action component to positively hold down the male-female joint.

1. Stiffener ribs on 1mm baseplate add formidable strength, specifically over the goose-neck
2. The clip's male hooks allow for full width engagement on the profile's female goose-neck grooves
3. The clips have 4 fastening points along their length for stability, particularly over blanket insulation
4. The geometry of the anchor unit is engineer-designed for optimal performance under high wind load and foot traffic
5. The entire clip is manufactured from 1mm high-tensile Galvanized or AZ coated steel for strength and compatibility with sheeting



PURLIN SPACINGS

THICKNESS	0.4mm	0.5mm	0.6mm
MATERIAL	ALUMINIUM-ZINC	ALUMINIUM-ZINC	ALUMINIUM-ZINC
ROOFS	mm	mm	mm
Single Span	1400	1700	1400
End Span	1600	1900	1500
Internal/Double Span	1800	2100	2000
Cantilever (Unstiffened)	150	150	180
Cantilever (Stiffened)	350	300	380
SIDE CLADDING			
Single Span	100	300	600
End Span	400	600	200
Internal Span	600	700	400
Cantilever	300	400	300

Span tables are for SAFLOK 700 with light foot traffic only. Span tables are based on 1.5 KN downward point load and 1.6Pa upward pressure. The span tables are maximum recommended spans based on buildings up to 10m high for a basic design wind speed of 28m/s.

For further clarity on terrain categories, and wind speeds please refer to the Safal Group Design and Installation Manual (specifically pages 5,6 and 10,11)

Note:
It is important to reduce purlin spacings by 20% when spring curving a roof

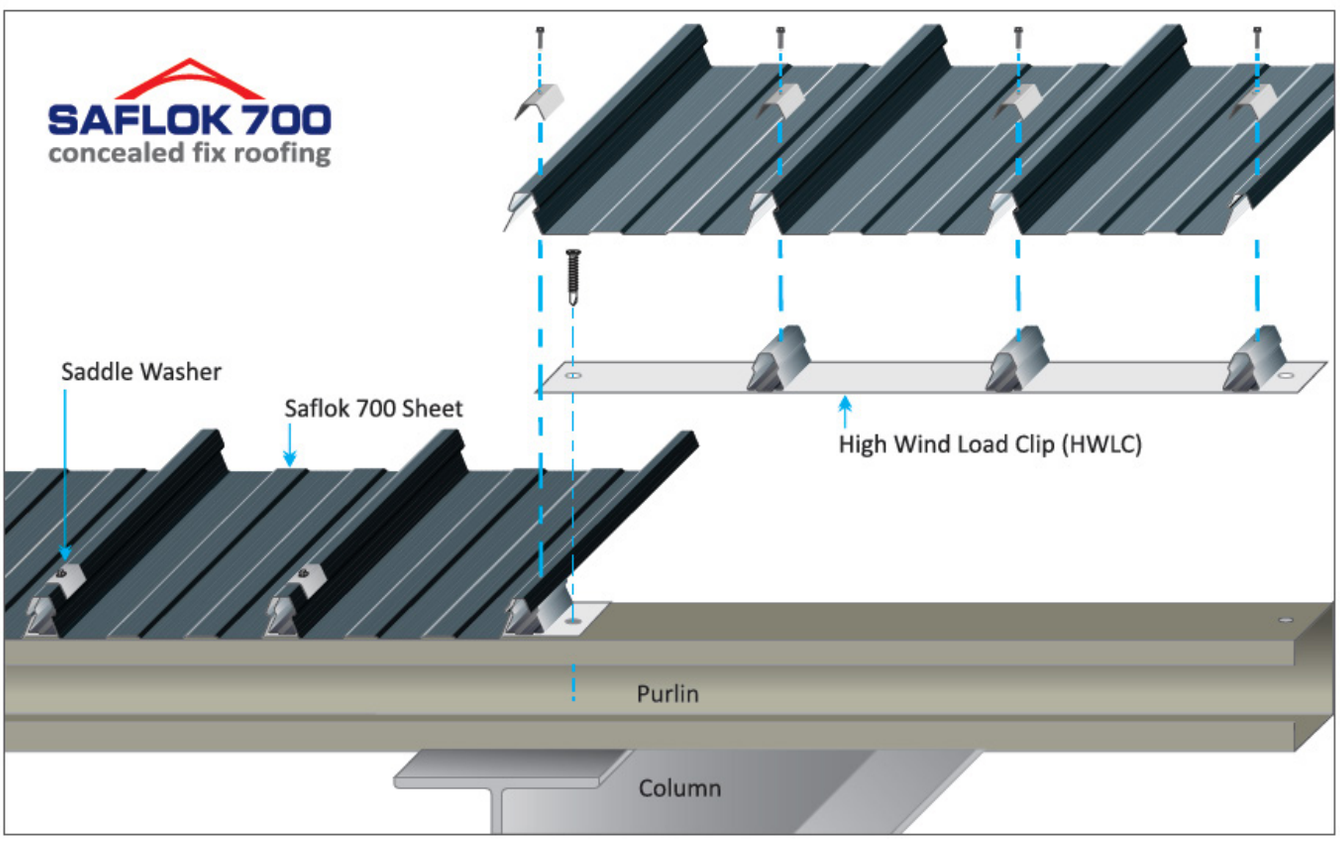
LENGTH & ROOF PITCH

SAFLOK 700 can be ordered in any practical length as per customer requirements. On site rolling is recommended for lengths in excess in 13 meters. The minimum roof pitch when using SAFLOK 700 is 20 on steel and 30 on wood.

DRAINAGE TABLE	ROOF SLOPE				
RAINFALL INTENSITY MM/HOUR	2^0	3^0	5^0	8^0	10^0
250	75	90			
300	65	75	95		
400	50	55	70	80	90
500	40	45	55	65	70
Maximum roof run for roof slopes and rainfall intensities					

HIGH WIND LOAD INSTALLATION DETAILING (HIGH WIND ZONES AND COASTAL WIND BELTS)

The installation process for using the High Wind Load System (HWLS) is a pierced fix method. The High Wind Load System is recommended for terrain categories A & B, (For reference on terrain categories, please refer to the Safal Group Design & Installation Manual). Note that the HWLS is not a concealed fix system, and is therefore recommended only for the perimeter and/or overhang areas of the building. Buildings taller than 10m would also require special design attention and the use of the HWLS.



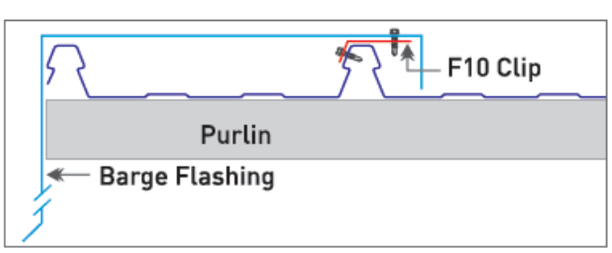
Step 1. Starting with the female rib first, align first sheet and hold down.

Step 2. Place saddle washers over the first 3 ribs above the purlins (starting from the female rib side). Align , and fasten the saddle washers through the rib using an appropriate Fixtite® or ALAF approved Fastener.

Step 3. Position the next sheet, engaging the female rib firmly over the male rib of the previous sheet. Repeat step 2.

Note: The bonded washer can only be fixed from the top.

F10 BRACKET FOR FLASHINGS



Note: This clip is positively fixed. Care should be taken when detailing industrial-length sheeting and flashing due to thermal expansion.

ALAF recommends the use of a Flashing Slider Clip for very long sheets. Please consult our Technical Department for assistance.

SPECIALIZED FIXING ACCESSORIES

POLY SLIDER CLIP

For use with Saflok polycarbonate sheeting. Must be installed with saddle washer.

Polycarbonate sheets must be positively fixed – consult our technical department for advice.

FASTENERS

When insulation is to be installed, you may need to increase the length of the fasteners given below, depending on the density and thickness of the insulation. When the fastener is properly tightened:

- Into metal: there should be at least three threads protruding past the purlin you are fixing to, but the shankguard must not reach that purlin.
- Into timber: the fastener must penetrate the timber by the same amount that the recommended fastener would do if there were no insulation.

ROLLING STRAIGHT ONTO A ROOF

It is possible to rollform straight onto a roof using a scaffold ramp. The limitations are the building height and space needed to roll. A departure angle of 10^0 is the maximum allowed at any time. A greater angle would damage the sheet when leaving the mill and again when bending to settle onto the roof. The sheeting cannot be roll formed onto a building higher than 10m.

SEALED JOINTS

For sealed joints use fasterners or reverts and neutral -cure cilicon sealant branded as suitable for use with AZ steel