

RL TOPDECK S (SPANLOK) FOR ULTRATHERM MSR ROOFING SYSTEMS

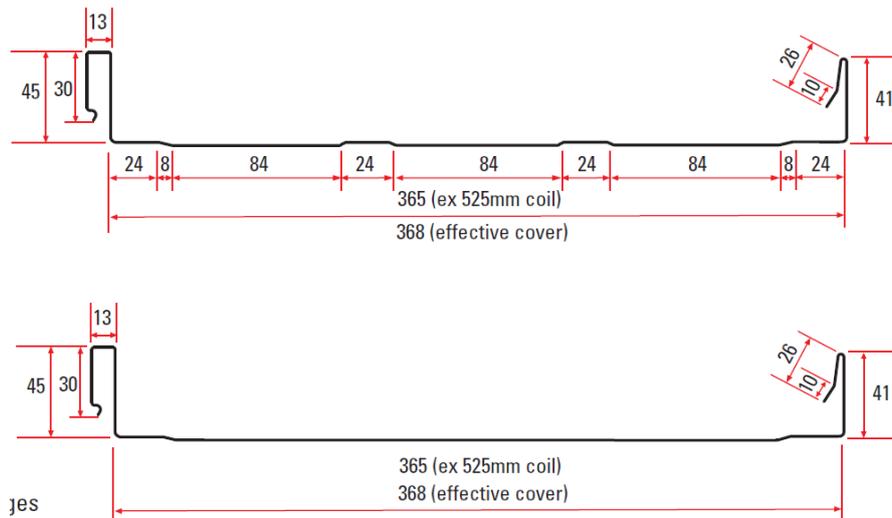
DESCRIPTION

Spanlok is a wide tray standing seam architectural profile. Spanlok represents the latest technology in architectural roofing. Spanlok is secret fixed with a concealed clip.

The Rooflogic Ultratherm MSR system incorporating the Spanok top skin offers a high performance architectural roofing solution. The RL Liner Deck and RL PIR Board provides a continuous insulation layer and a fully sarked substrate which is ideal for the support of wide tray architectural roofing profiles.



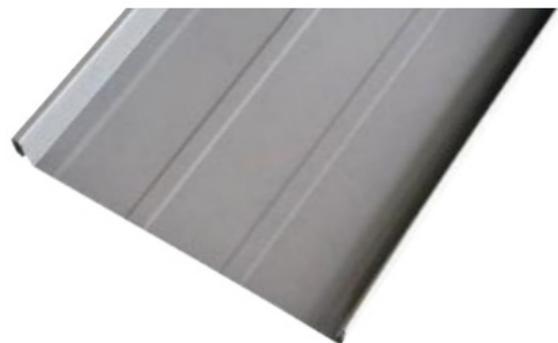
DIMENSIONS



MINIMUM PITCH

The minimum pitch for Spanlok is 3°. Any transverse seams should be sealed at pitches less than 20°. The building design pitch may need to be higher to take into account any cumulative deflections of the frame, purlin and roof sheeting or penetrations.

Manufactured in North Island Only. For further information contact Rooflogic.



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DESIGN CONSIDERATIONS

The designer should take into account the following factors when specifying Spanlok:

- Preferred pan width
- Material type and finish
- Roof pitch
- Sheet lengths
- Wind Loadings (Refer to Wind Loadings Section)
- Snow design
- Reference to our standard details
- Swaged or non swaged
- Purlin spacing

Wide tray type roofing profiles, due to their inherent nature of a flat pan without the use of structural ribs, can give rise to undulations in the wide flat pan. These are considered to be an architectural feature of the profiles and with the Ultratherm MSR system providing a fully supported substrate, are aesthetic only.

Spanlok can offer the use of a double swage in each pan as an architectural feature which assists in eliminating this if required. Inclusion or exclusion of swages must be specified at the time of order.

Different swage options, including single swage, are also available on request. A clip relief swage at the pan edges is supplied standard.

Low gloss paint coatings are also available which assist in minimising the effect of any undulations but must be specified at time of coil ordering.

Penetration flashings for Spanlok must be installed by the Spanlok installation contractor only and other trades must not cut any holes unless under the supervision of the roofing contractor. The placement of penetrations should ensure that they do not interfere with the panel joints.

Spanlok is manufactured custom cut to length subject to transport and site limitations.

Spanlok can be manufactured on site if required due to transport length.

WIND LOADING

It is first necessary for the designer to calculate the design wind load for the roofing and cladding in accordance with generally acceptable practice, by reference to AS/NZS 1170, and /or NZS 3604 as appropriate. For a fuller explanation of this refer to the NZ Metal Roof and Wall Cladding Code of Practice.

The uplift forces on Spanlok roof and cladding are transferred through the building via the clips and

fasteners to the structure. The performance criteria is based on the number of clips or fasteners per m², which can be varied by the spacing of the purlins and clips, or the width of the panels.

To improve the uplift resistance of Spanlok roof and cladding the design options are:

- To reduce the width of the end bays
- To place the clips and fasteners closer together with the latter.

In these areas consideration should also be given to reducing the maximum gable or verge panel width.

Purlin spacing and ultimately the number of secret fix clips and fasteners per lineal metre and ultimately per m² for Spanlok roofing and cladding must be derived from the following graph compiled as a result of testing as per the NZMRM Metal Roof and Wall Cladding Code of Practice.

MAINTENANCE

Maintenance should be performed as necessary to remove dirt, salt and pollutants in accordance with warranty conditions. In severe environments more regular maintenance may be necessary.

INSTALLATION

Installation should be undertaken by experienced RoofLogic installers. Soft rubber soled shoes should be worn and foot traffic should be in the pan of the profile. Other trades should be also made aware of this by the main contractor.

Flashings should be notched over the ribs and all sheeting should be edge fixed. Packs on site should be kept dry and stored above ground level. If sheets become wet they should be fillet stacked to allow drying.

SPECIFICATIONS

Rooflogic will provide project specifications detailing the system assembly, including the installation of Spanlok top skin.

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INFORMATION TABLE

SUBSTRATE MATERIAL	STEEL	ALUMINIUM	COPPER
THICKNESS	.55BMT	0.90BMT	0.90BMT
APPROX WEIGHT PER LINEAL METRE FOR 365mm PAN	2.40	N/A	3.10
EFFECTIVE COVER FOR STANDARD PAN (mm) (NOMINAL)			
SPANLOK-365mm PAN	368mm	N/A	338mm
N/A= NOT READILY AVAILABLE			

MATERIAL RECOMMENDATIONS & STANDARD PAN WIDTHS TO SUIT STANDARD COILS

The use of the following sizes minimizes waste and cost and generally shortens lead times. However other sizes are available and if other than standard sizes are required contact RoofLogic for specific advice.

.55 PLAIN AND PREPAINTED STEEL	0.90 PLAIN AND PREPAINTED ALUMINIUM	0.70 COPPER ALUMINIUM
365mm	N/A	335mm

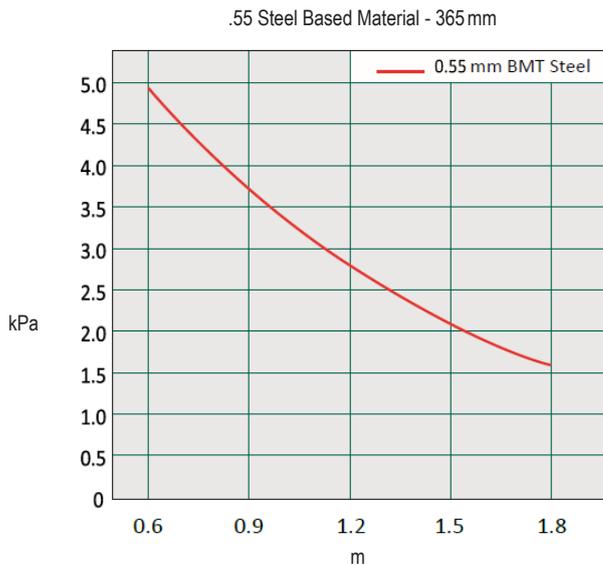
The above pan widths are based on standard coil widths and are a nominal sizes only.

Material availability is subject to available stock and some material such as copper may have lead times of 3-4 months. For all other materials such as Titanium Zinc refer to RoofingLogic. All measurements are nominal. N/A - Not Readily Available.

ROOF EXPANSION PROVISION

Thermal movement across the pan is taken up by the provision of a small gap at the base of the profile. Linear expansion is accommodated by the profile sliding on the clips. Refer to Rooflogic.

WIND DESIGN LOAD GRAPH



Intermediate span in metres. End spans to be 2/3 of intermediate span. Intermediate span of 600mm can also use end span of 600mm. Testing confirms that .90mm Aluminium has similar results to .55mm Steel as shown above and these graphs can also be used for .90mm Aluminium loadings.

PRIMARY FIXING CHART

Span lok should be fixed in accordance with the following chart into the primary structure at purlin and girt spacing derived from the Windload Design Graph.

MATERIAL	CLIP MATERIAL	SCREW TYPR APPROVED TIMBER TYPE	SCREWS PER CLIP
STEELBASED	GALVANISED OR ZAM	#TRUFast PURLIN FASTENER, LENGTH FROM 100mm-200mm DEPENDANT ON INSULATION THICKNESS	2
ALUMINIUM	STAINLESS STEEL		
COPPER			

Note: Refer to project specifications or RoofLogic if further information in respect to fastener selection is required.