



FOOT TRAFFIC

D E S I G N G U I D E



FOOT TRAFFIC GUIDE

*This Foot Traffic Guide indicates the performance of various **Stramit**[®] roofing profiles under differing foot traffic load conditions and should be taken into account when specifications are prepared.*



Important note

The information contained within this brochure is intended for general use and information only. Before application in a particular situation, Stramit recommends that you obtain appropriate independent qualified expert advice confirming the suitability of product(s) and information in question for the application proposed. While Stramit accepts its legal obligations, be aware however that to the extent permitted by law, Stramit disclaims all liability (including liability for negligence) for all loss and damage resulting from the direct or indirect use, or reliance on, the information provided in this brochure.

Designing for foot traffic

All roofs are subject to some foot traffic during their installed life. This may be by fixers during installation or at times of routine maintenance of the roof or other equipment located on or through the roof.

IMPORTANT. Roofing profiles must not be considered as a walkway.

Definitions

High Maintenance Traffic

Designed to take a 1.8 kN concentrated load anywhere on the roof in accordance with AS/NZS 1170.1:2002, for R1-Street Awnings.

Normal Foot Traffic

Traditional loads of 1.1kN with no reduction factor for serviceability

Controlled Foot Traffic

Load of 1.1kN in accordance with AS1562.1-1992 and AS/NZS 1170.1:2002 for R2 - Other Roofs.

All spans given in this guide comply with both strength and serviceability (limit state) requirements, for concentrated load applications only. Refer to the Product Technical Manual for information on uniformly distributed loads.

Foot traffic testing

In accordance with AS1562, testing carried out for foot traffic loadings can be limited to specific areas of the roof sheet. Stramit always establishes and tests the worst case along the designated path.

Walking on metal roofs

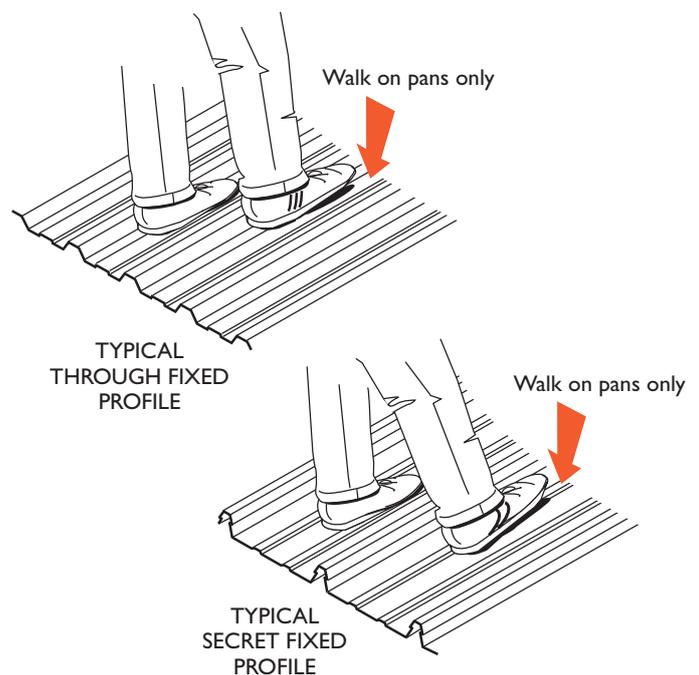
The designated walking area for Stramit roof products are:

Flat Tray Profiles

Walk in the trays only, whether they be concealed or through fixed. **Walk in the pan only.**



WALK ONLY IN PANS

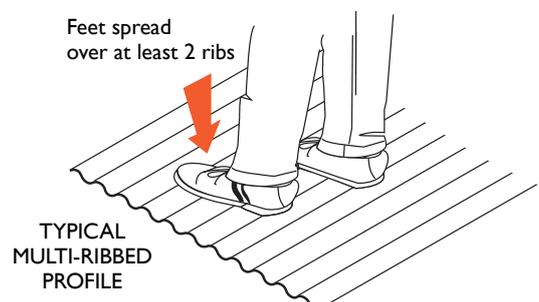


Multi-Ribbed Profiles

(*Stramit*[®] *Corrugated* sheeting and *Stramit Longspan*[®] sheeting), **distribute the load over two ribs.**



WALK ON TWO RIBS



Product installation

All Stramit profiles must be fixed in accordance with the procedures given in the specific product literature.

Stramit Longspan[®] sheeting and **Stramit**[®] **Corrugated** sheeting performance figures given in this brochure refer to product fixed using 3 fasteners/ sheet/batten.

Wind loads

Spans given in this brochure apply only to foot traffic limitations. Roof and wall claddings should also be designed for wind load performance using the relevant Stramit product technical manual.

However, as a guide, and subject to individual project needs, product spans given in this foot traffic guide may be suitable for the wind load conditions as shown.

* Wind Load recommendations are based on applications which have:

- at least 3 spans
- maximum height of 7m
- enclosed building no more than 1,000m² in area and not affected by local topography

Adverse conditions

If it is intended to use **Stramit**[®] roofing, walling or rainwater products within 1km of breaking surf or calm marine or in industrial, farming and unusually corrosive environments, please contact your local Stramit office for advice.

Roof safety

Roof Safety is always of prime importance to installers, owners and maintenance staff. Always follow the regulations and other appropriate safety procedures and use the correct safety equipment.

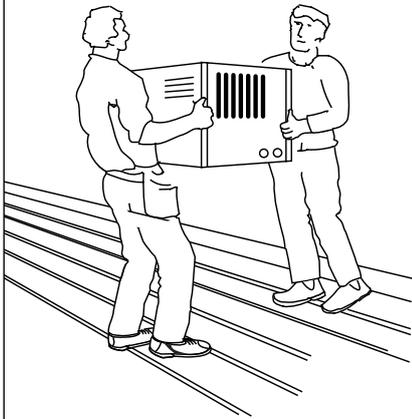
When on a roof, use these hints for best results:

- Always follow safety guidelines for working on roofs

- Walk in the pans of the wide tray roof sheeting, as close as possible to the roofing supports.
- Walk up the roof in pans and across the roof at supports.
- Use footwear with soft, light coloured soles that will not pick up small stones or steel filings, etc.
- Do not walk in the last pan on the edge of the roof, either while laying the sheeting or around holes for penetrations or skylights.
- With close rib sheeting, e.g. **Stramit**[®] **Corrugated** sheeting or **Stramit Longspan**[®] sheeting, always stand over two ribs with feet flat, and as close as possible to the sheeting supports – WALK ON SCREW LINES.
- Surfaces of ZINCALUME[®] and COLORBOND[®] are prone to scuffing if footwear or heavy equipment are dragged across the surface. This can affect both appearance and performance and must be avoided at all times. If heavy roof traffic cannot be avoided on certain roof areas, it is important to protect the sheeting by installing either temporary or permanent walkways.
- Distribute bodyweight evenly over the soles of the feet, trying not to concentrate weight on heel or toe.
- Do not walk on cantilever sections of the roof sheeting, e.g. overhangs into box gutters or unsupported ends around penetrations or skylights. These sections of the roof sheeting are not designed to take foot traffic.
- Avoid walking at the mid span of the sheeting and walk using smaller, rather than larger, steps to reduce the 'push off' spring load.
- Provide temporary protection to the roof sheeting during construction if the roof is going to be subjected to abnormal foot traffic.
- Temporary walkways can be provided during construction either by using small sandbags, or carpet covered timber blocking (on the tray) at the roof supports, to carry planking.

ROOFING FOOT TRAFFIC GUIDE (all spans are in mm)

High



sheeting/decking	BMT	Int. Span	End Span
Stramit Speed Deck Ultra [®]	0.42	1100	700
	0.48	1400	900
Stramit Speed Deck 500	0.42	NA	NA
	0.48	NA	NA
	0.60	1100	700
Stramit[®] Corrugated	0.42	NA	NA
	0.48	750	500
Stramit[®] Corrugated Curving Quality	0.60	NA	NA
Stramit Monoclad [®]	0.42	NA	NA
	0.48	1000	800
Stramit Megaclad [®]	0.42	NA	NA
	0.48	800	600
Stramit Longspan [®]	0.42	NA	NA
	0.48	800	600
Stramit CapacityPLUS[™] 660	0.42	1200	1000
	0.48	1500	1300 [†]

High Maintenance Traffic

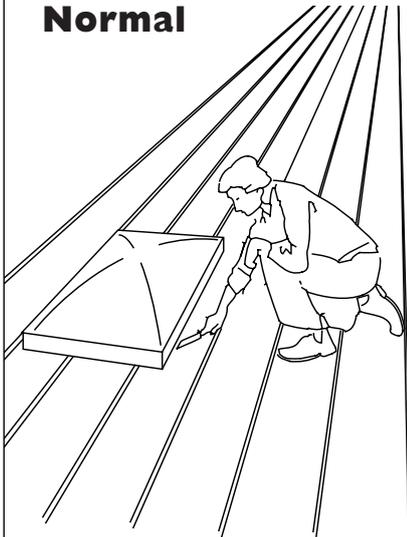
Where it is known that a roof will be subjected to repeated foot traffic by maintenance people unaware of the correct procedures for walking on metal roofs, the use of this table in roof design will help prevent future damage.

The recommended spans allow for a loading of 1.8kN to be applied to any part of the roof surface (including ribs). An alternative is to incorporate a protective walkway over the surface areas.

NA – Shows this product is not applicable to this load condition.

N3 or Region A (TC 2, NS) or Region B (TC 2.5, PS)*
([†] except these values)

Normal



sheeting/decking	BMT	Int. Span	End Span
Stramit Speed Deck Ultra [®]	0.42	2100	1700
	0.48	2700 [†]	2300 [†]
	0.60	2700 [†]	2200 [†]
Stramit Speed Deck 500	0.42	1500 [†]	1100
	0.48	2100 [†]	1700
Stramit[®] Corrugated	0.42	1200 [†]	900
	0.48	1600 [†]	1200 [†]
	0.60	1200	900
Stramit[®] Corrugated Curving Quality	0.42	1700	1350
	0.48	2300	1700
Stramit Megaclad [®]	0.42	1500 [†]	1250 [†]
	0.48	1800	1500 [†]
Stramit Longspan [®]	0.42	2100 [†]	1750 [†]
	0.48	2700 [†]	2250 [†]
Stramit CapacityPLUS[™] 660	0.42	3400 [†]	2800 [†]
	0.48	4000 [†]	3400 [†]

Normal Foot Traffic

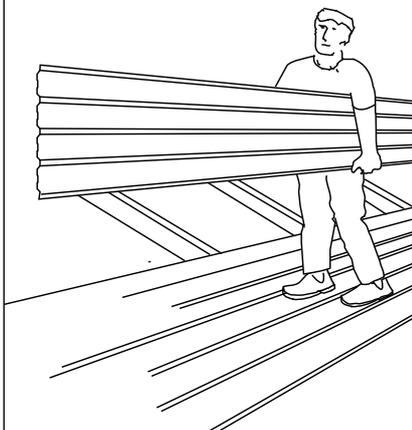
These recommendations cover roofs where there will be moderate foot traffic from time to time, possibly involving minor maintenance activities.

Spans allow for foot traffic using designated walking areas with a typical load of 1.1kN, and also take account of practical installation factors.

These spans are closely aligned with traditional span limitations which have been in use throughout Australia for many years.

N2 or Region A (TC 2.5, PS) or Region B (TC 3, FS)*
([†] except these values)

Controlled



sheeting/decking	BMT	Int. Span	End Span
Stramit Speed Deck Ultra [®]	0.42	2700	2250
	0.48	3600	2700
	0.60	3600	2700
Stramit[#] Speed Deck 500	0.42	2400	2100
	0.48	3000	2400
Stramit[®] Corrugated	0.42	1500	900
	0.48	1800	1500
	0.60	1900	1600
Stramit[®] Corrugated Curving Quality	0.42	2100	1800
	0.48	2700	2250
Stramit Megaclad [®]	0.42	1800	1500
	0.48	2100	1800
Stramit Longspan [®]	0.42	2400	1800
	0.48	3000	2250
Stramit CapacityPLUS[™] 660	0.42	3400	3000
	0.48	4000	3400

Controlled Foot Traffic

These spans are for roofs which will encounter foot traffic only by experienced personnel.

The spans given comply with the foot traffic requirements of AS1562 – 1992 for a 0.9kN serviceability load but extreme care should be exercised when roofs are installed based on these conditions to prevent any unsightly aesthetic imperfections.

If these recommendations are incorporated into the roofing design, the designated walking areas must be used.

Wind Load Applications for these spans must be checked

WARNING – All snap together decks (with the exception of **Stramit Speed Deck Ultra**[®] decking) may require special installation procedures when spans exceed the normal foot traffic limitations.

TC – Terrain Category

FS/PS/NS – Full, partial or no shielding



Building Products

The Stramit web page can be found at:

www.stramit.com.au

Details of many **Stramit**® products can also be seen on the AIA site 'Product Selector' at:

www.selector.com.au

		prices	availability	general	technical
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