

General Certification for Flush Mount Solar System on Lysaght Klip-Lok 406 Roof - MA Rail

For: Mibet Australia Pty Ltd
PO Box 550
Fullarton SA 5063

Job No.: 14022
Date: 29/11/2023

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Approval			
Author Signature		Approver Signature	
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Title	Structural Engineer	Title	Technical Director

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Our Ref: 14022-MA-F5/AA

29 November 2023

Mibet Australia Pty Ltd
PO Box 550
Fullarton SA 5063

General Certification for Flush Mount Solar System on Lysaght Klip-Lok 406 Roof - MA Rail

Gamcorp Pty Ltd, being Structural Engineers within the meaning of Australian Building Regulations, have carried out a structural design check of Flush Mounted System on Lysaght Klip-Lok 406 Roof (Concealed Fix Roof) within Australia. The design check has been based on the information, drawings and the test reports provided by Mibet Australia Pty Ltd.

Components of the system covered in this certificate shown in the table below:

Component	Part No.
Rail	MA Rail
Roof Clamp	Roof Clamp 406 (small)
Inter Clamp	Inter Clamp Kit (MA)
End Clamp	End Clamp Kit (MA)

This certificate is **only valid** for the MA Rail Flush Mount Solar System itself. The roof structure or the building structure and PV panels shall be assessed separately and accordingly.

This certificate is **only valid** when roof clamp fixing to the **full rib** of roof sheeting on the top of the purlins. If the fixing condition is different from those conditions, interface spacing shall be reviewed and validated.

For the indicative location of the **full rib** in the roof sheeting, please see **Figure 1**.

This certificate is **only valid** as a whole. Any information extracted from this certificate is not valid if standing alone.

We find the Installation of Flush Mounted System on Lysaght Klip-Lok 406 Roof for Australian use to be structurally sufficient based on the following conditions:

- Wind loads to **AS/NZS1170.2:2021**
- Wind region **A, B1, B2, C & D**
- Wind terrain category **2 & 3**
- Wind average recurrence interval of **200 years**
- Maximum building height **20m**
- The PV panel dimensions to be **1670mm x 1000mm, 1970mm x 1000mm, 2100mm x 1050mm, 2200mm x 1200mm & 2400mm x 1200mm**
- Maximum weight of the PV panel and array frame to be **15 kg/m²**
- Rails to be **MA Rails**
- Material of rails and other components to be **AL/6005-T5 UNO**
- Roof clamp to be **Roof Clamp 406 (small)**
- Each PV panel to be installed using **2 rails** minimum in all circumstances

- Roof clamps to be fixed only to the **full rib** of roof sheeting on the top of the purlins (See **Figure 1**)
- No PV panel to be installed within 2xs from edges and ridge. "s" is the maximum gap between the underside of the panel and the roof surface when installed on the roof ($50\text{mm} \leq s \leq 300\text{mm}$)
- Installation of PV panels to be done in accordance with the PV panels installation manual
- The certification **excludes** assessment of roof structure and PV panels

Refer to attached summary table for interface spacing (unit: mm)

NOTES:

- The recommended spacing nominated in this certification is based on the capacity of the array frame and the fixing of array frames to the roof, not the roof structure and PV panels. It is the responsibility of the installer to adopt the most critical spacing.
- If any of the above conditions cannot be met, the structural engineer must be notified immediately. The spacing could not be less than one third of the panel width.
- The capacity of the roof clamp was obtained from test report no. 9081-03/JD, dated 18th December 2020 and provided by Gamcorp.
- The spacing shown in the interface tables shall be adjusted based on the assessment and requirement of the roof structures.

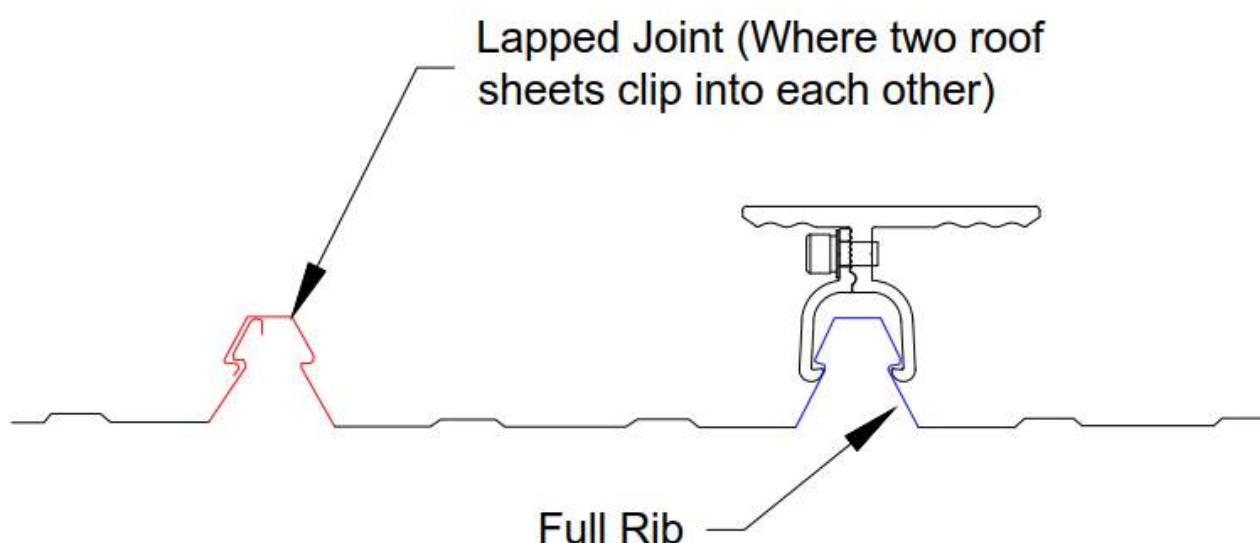


Figure 1 – Full Rib Location For Indicative

Construction is to be carried out strictly in accordance with the manufacturer's instructions. This work was designed by **Ali Askari** in accordance with the provisions of Australian Building Regulations and in accordance with sound, widely accepted engineering principles.

This certification is only valid till **30/11/2025**. Gamcorp should be contacted for future validation. Contact Gamcorp for a customised system or if the site conditions are not covered by this assessment.

Yours faithfully,
Gamcorp Pty Ltd



Jianzeng Geng

Technical Director
FIEAust CPEng NER 3108316
NT Registration: 239858ES
QLD Registration: 18455
VIC Registration: PE0002539
TAS Registration: CC7263

Attachments:

- Flush Array Frame System Spacing Table - with MA Rail - Lysaght Klip-Lok 406

Structural Design Documentation

Flush Array Frame System Spacing Table

According to AS/NZS 1170.2-2021

with MA Rail - Lysaght Klip-Lok 406

within Australia

Terrain Category 2 & 3

For: Mibet Australia Pty Ltd
PO Box 550
Fullarton SA 5063

Job Number: 14022 (MA-F5)
Date: 27 November 2023



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Job No: 14022 (MA-F5)
Client: Mibet Australia Pty Ltd
Project: Flush Array Frame System Spacing Table
with MA Rail - Lysaght Klip-Lok 406
Address: within Australia
Wind Terrain Category: Terrain Category 2 & 3

Australian/New Zealand Standards

AS/NZS 1170.0:2002	Structural design actions Part 0: General principles
AS/NZS 1170.1:2002 (R2016)	Structural design actions Part 1: Permanent, imposed and other actions
AS/NZS 1170.2:2021	Structural design actions Part 2: Wind actions
AS/NZS 1664.1:1997 (R2020)	Aluminium structures Part 1: Limit state design
AS/NZS 4600:2018	Cold-formed steel structures
AS 4100:2020	Steel structures

Designed: AA
Checked: HS
Date: Nov-23

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 1.67mx1m
Terrain category: 2

$h/d \leq 0.5$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	515	795	1095	1745	420	645	885	1400	380	580	795	1245	360	550	750	1175
B1	380	585	800	1260	--	480	655	1020	--	435	590	915	--	410	555	860
B2	--	475	645	1005	--	390	530	815	--	350	475	735	--	330	450	690
C	--	340	460	710	--	--	375	580	--	--	340	520	--	--	--	490
D	--	--	305	495	--	--	--	410	--	--	--	370	--	--	--	345

$h/d \geq 1.0$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	350	535	730	1140	--	440	595	925	--	395	535	825	--	375	505	780
B1	--	400	540	835	--	325	440	680	--	--	400	615	--	--	375	575
B2	--	--	435	675	--	--	360	550	--	--	--	495	--	--	--	465
C	--	--	--	480	--	--	--	390	--	--	--	355	--	--	--	335
D	--	--	--	340	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for definition h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 1.67mx1m
Terrain category: 3

$h/d \leq 0.5$ *

Wind Region	Building Height - h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	625	970	1345	2065	625	970	1345	2065	535	830	1145	1835	480	740	1015	1620
B1	465	715	980	1560	465	715	980	1560	400	615	840	1325	360	550	750	1175
B2	375	580	790	1240	375	580	790	1240	305	500	680	1060	--	445	605	940
C	--	410	560	865	--	410	560	865	--	355	480	745	--	--	430	660
D	--	--	395	605	--	--	395	605	--	--	340	520	--	--	--	465

$h/d \geq 1.0$ *

Wind Region	Building Height - h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	425	650	890	1405	425	650	890	1405	365	560	760	1195	325	500	680	1060
B1	--	485	660	1025	--	485	660	1025	--	415	565	875	--	375	505	780
B2	--	390	530	820	--	390	530	820	--	340	460	705	--	--	410	630
C	--	--	380	580	--	--	380	580	--	--	325	500	--	--	--	445
D	--	--	--	410	--	--	--	410	--	--	--	355	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for defination h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 1.97mx1m
Terrain category: 2

$h/d \leq 0.5$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	435	675	925	1480	355	550	750	1185	--	495	670	1055	--	465	635	995
B1	--	495	680	1065	--	410	555	865	--	365	500	775	--	345	470	725
B2	--	400	545	850	--	325	445	690	--	--	405	625	--	--	380	585
C	--	--	390	600	--	--	--	490	--	--	--	440	--	--	--	415
D	--	--	--	420	--	--	--	345	--	--	--	--	--	--	--	--

$h/d \geq 1.0$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	--	455	615	965	--	370	505	780	--	335	450	700	--	--	430	660
B1	--	335	455	705	--	--	375	580	--	--	340	520	--	--	--	490
B2	--	--	370	570	--	--	--	465	--	--	--	420	--	--	--	395
C	--	--	--	405	--	--	--	330	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for definition h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 1.97mx1m
Terrain category: 3

$h/d \leq 0.5$ *

Wind Region	Building Height - h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	530	825	1140	1850	530	825	1140	1850	455	705	970	1560	405	625	860	1370
B1	395	610	835	1325	395	610	835	1325	340	520	715	1125	--	465	635	995
B2	--	490	670	1050	--	490	670	1050	--	420	575	895	--	375	510	795
C	--	350	475	735	--	350	475	735	--	--	410	630	--	--	365	560
D	--	--	335	515	--	--	335	515	--	--	--	440	--	--	--	395

$h/d \geq 1.0$ *

Wind Region	Building Height - h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	360	550	755	1190	360	550	755	1190	--	475	645	1015	--	425	575	900
B1	--	410	555	870	--	410	555	870	--	355	480	745	--	--	430	660
B2	--	330	450	695	--	330	450	695	--	--	390	600	--	--	345	530
C	--	--	--	490	--	--	--	490	--	--	--	425	--	--	--	380
D	--	--	--	350	--	--	--	350	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for definition h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 2.1mx1.05m
Terrain category: 2

$h/d \leq 0.5$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	410	630	870	1390	--	515	705	1110	--	460	630	990	--	435	595	935
B1	--	465	635	1000	--	380	520	810	--	340	470	725	--	--	440	680
B2	--	375	515	800	--	--	420	650	--	--	380	585	--	--	355	550
C	--	--	365	565	--	--	--	460	--	--	--	415	--	--	--	390
D	--	--	--	395	--	--	--	--	--	--	--	--	--	--	--	--

$h/d \geq 1.0$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	--	425	580	905	--	345	470	735	--	--	425	655	--	--	400	620
B1	--	--	430	665	--	--	350	540	--	--	--	485	--	--	--	460
B2	--	--	345	535	--	--	--	435	--	--	--	395	--	--	--	370
C	--	--	--	380	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for definition h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 2.1mx1.05m
Terrain category: 3

$h/d \leq 0.5$ *

Wind Region	Building Height - h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	495	770	1070	1735	495	770	1070	1735	425	660	910	1460	380	590	810	1285
B1	370	570	780	1240	370	570	780	1240	--	490	670	1055	--	435	595	935
B2	--	460	630	985	--	460	630	985	--	395	540	840	--	355	480	745
C	--	--	445	690	--	--	445	690	--	--	385	590	--	--	300	525
D	--	--	--	480	--	--	--	480	--	--	--	415	--	--	--	370

$h/d \geq 1.0$ *

Wind Region	Building Height - h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	--	515	705	1115	--	515	705	1115	--	445	605	950	--	395	540	840
B1	--	385	520	815	--	385	520	815	--	--	450	695	--	--	400	620
B2	--	--	420	655	--	--	420	655	--	--	365	560	--	--	--	500
C	--	--	--	460	--	--	--	460	--	--	--	400	--	--	--	355
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for defination h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 2.2mx1.2m
Terrain category: 2

$h/d \leq 0.5$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	340	605	830	1325	--	490	670	1060	--	440	600	945	--	415	570	890
B1	--	445	605	955	--	--	495	775	--	--	445	695	--	--	420	650
B2	--	--	490	765	--	--	400	620	--	--	--	560	--	--	--	525
C	--	--	--	540	--	--	--	440	--	--	--	390	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

$h/d \geq 1.0$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	--	405	555	865	--	--	450	700	--	--	405	625	--	--	--	590
B1	--	--	410	635	--	--	--	515	--	--	--	465	--	--	--	435
B2	--	--	--	510	--	--	--	415	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for definition h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 2.2mx1.2m
Terrain category: **3**

$h/d \leq 0.5$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	475	735	1020	1660	475	735	1020	1660	405	630	870	1395	--	560	770	1225
B1	--	545	745	1185	--	545	745	1185	--	465	640	1005	--	415	570	890
B2	--	440	600	940	--	440	600	940	--	--	515	805	--	--	455	710
C	--	--	425	655	--	--	425	655	--	--	--	565	--	--	--	500
D	--	--	--	460	--	--	--	460	--	--	--	390	--	--	--	--

$h/d \geq 1.0$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	--	495	675	1065	--	495	675	1065	--	425	580	905	--	--	515	805
B1	--	--	500	780	--	--	500	780	--	--	430	665	--	--	--	590
B2	--	--	405	625	--	--	405	625	--	--	--	535	--	--	--	475
C	--	--	--	440	--	--	--	440	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for defination h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
Address: **with MA Rail - Lysaght Klip-Lok 406**
within Australia

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 2.4mx1.2m
Terrain category: 2

$h/d \leq 0.5$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	--	555	760	1215	--	450	615	970	--	405	550	865	--	--	520	815
B1	--	410	555	875	--	--	455	710	--	--	410	635	--	--	--	595
B2	--	--	450	700	--	--	--	570	--	--	--	510	--	--	--	480
C	--	--	--	495	--	--	--	400	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

$h/d \geq 1.0$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal	Corner	Edge	Intermed iate	Internal
A	--	--	505	795	--	--	415	640	--	--	--	575	--	--	--	545
B1	--	--	--	580	--	--	--	475	--	--	--	425	--	--	--	400
B2	--	--	--	465	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for defination h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

Flush Array Frame System Spacing Table for Lysaght Klip-Lok 406 roof sheeting (mm)

Type of Rail: MA Rail
Type of Interface: Roof Clamp 406 (small)
Solar Panel Dimension: 2.4mx1.2m
Terrain category: **3**

$h/d \leq 0.5$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	435	675	935	1520	435	675	935	1520	--	580	795	1280	--	515	705	1125
B1	--	500	685	1085	--	500	685	1085	--	430	585	920	--	--	520	815
B2	--	400	550	860	--	400	550	860	--	--	470	735	--	--	420	650
C	--	--	--	600	--	--	--	600	--	--	--	515	--	--	--	460
D	--	--	--	420	--	--	--	420	--	--	--	--	--	--	--	--

$h/d \geq 1.0$ *

Wind Region	Building Height – h (m)															
	$h \leq 5$				$5 < h \leq 10$				$10 < h \leq 15$				$15 < h \leq 20$			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	450	620	975	--	450	620	975	--	--	530	830	--	--	470	735
B1	--	--	455	715	--	--	455	715	--	--	390	610	--	--	--	545
B2	--	--	--	570	--	--	--	570	--	--	--	490	--	--	--	435
C	--	--	--	405	--	--	--	405	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* For intermediate values of h/d ratios, linear interpolation shall be used. Refer Note 9 for definition h and d.

Client: **Mibet Australia Pty Ltd**
Project: **Flush Array Frame System Spacing Table**
with MA Rail - Lysaght Klip-Lok 406
Address: **within Australia**

Job: **14022**
Date: **Nov-23**
Designed: **AA**
Checked: **HS**

General Notes

Note 1 Following components are satisfied to use according to AS/NZS 1170.2:2021

Components	Part Number	Description
Rail	MA Rail	As per drawing or test report provided by the client
Roof Interface	Roof Clamp 406 (small)	
Inter Clamp	Inter Clamp Kit (MA)	
End Clamp	End Clamp Kit (MA)	

Note 2 Spacing calculated based on the roof clamp test results.

Note 3 Maximum uplift wind pressure is limited to 5kPa.

Note 4 Deflection is limited to Minimum of L/120 and 15mm.

Note 5 Panels to be installed parallel to roof surface.

Note 6 "---" states NOT SUITABLE FOR INSTALLATION.

Note 7 Refer section 4.2.1 of AS/NZS 1170.2:2021 for terrain category definition.

Note 8 Wind regions are shown in Figure 3.1(A) of AS/NZS 1170.2:2021.

Note 9 Building height is average roof height of structure above ground. Refer Figure 1 for definition of h, d and b.

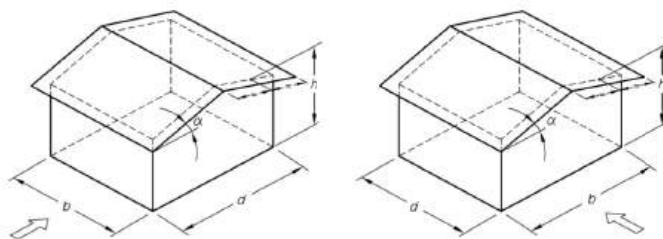
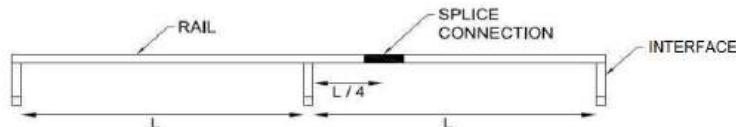


Figure 1 – h, d and b definition

Note 10 Rail splice connection must be placed a quarter length of the spacing of interface. No Splice connection should be placed at the centre of spacing or over the interface.



Note 11 Refer Figure 2 for definition of roof zones.

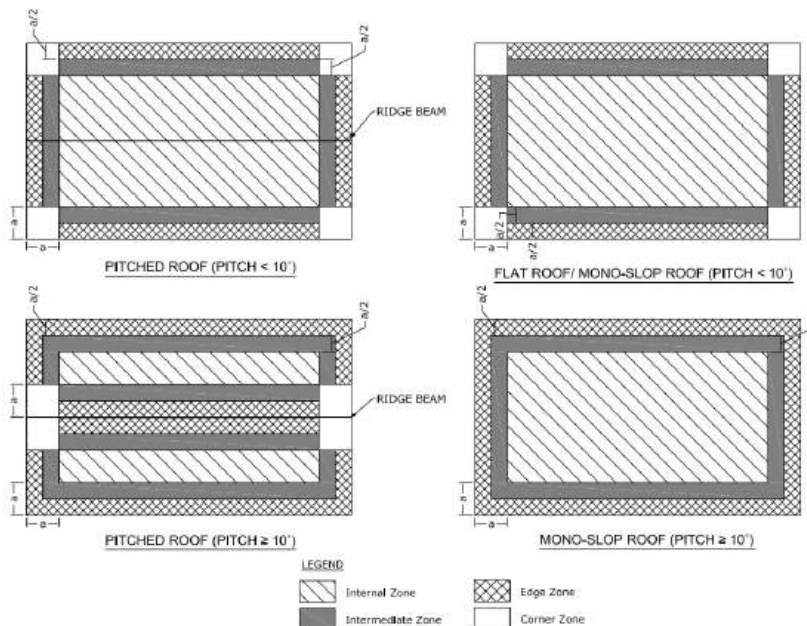


Figure2- Roof Zones Definition

In Figure 2, the value of dimension "a" is the minimum of 0.2b or 0.2d, if (h/b) or (h/d) ≥ 0.2; or 2h if both (h/b) and (h/d) < 0.2 (b & d are building dimensions and h is average roof height, see Figure 1)