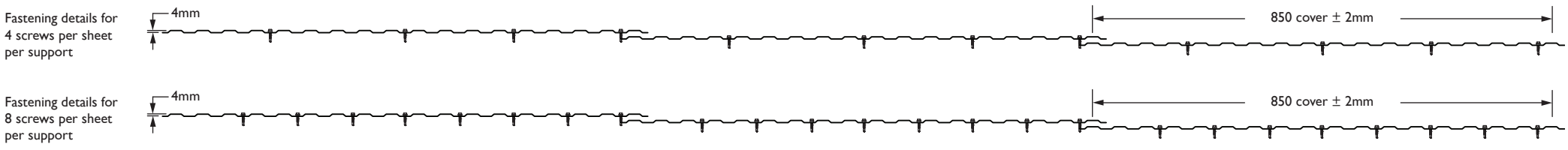
MAXIRIB WALL CLADDING

Cyclonic Region C

0.42mm BMT G550 AZ150

July 2013

WALLING



Drawing not to scale

Design Pressures - Strength Limit State Capacity (kPa)

Span (mm)	8 screws per sheet			4 screws per sheet		
	Single	End	Internal	Single	End	Internal
450	10.02	10.02	10.96	10.02	10.02	10.96
600	9.20	9.20	10.06	8.00	8.00	8.75
900	5.50	5.50	6.01	4.50	4.50	4.92
1200	3.25	3.25	3.55	2.50	2.50	2.73

Fastener Details

Steel	**Minimum 1.00mm (BMT)**	Class 4 12-14x20mm hex head self drilling screw with neoprene washer.
Timber	**Hardwood (F11)**	Class 4 minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.
	Softwood (F5)	Class 4 minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.

Maximum Allowable Spans (mm)

		3m Maximum Height					5m Maximum Height				
Terrain Category	KI	Pz (kPa)	8 screws per sheet		4 screws per sheet		Pz (kPa)	8 screws per sheet		4 screws per sheet	
			End	Internal	End	Internal		End	Internal	End	Internal
1.0	1.0	3.43	1160	1200	1030	1070	3.86	1090	1140	970	1010
	1.5	4.26	1040	1090	920	970	4.79	970	1020	860	910
	2.0	5.08	940	990	830	880	5.72	870	920	780	820
1.5	1.0	3.16	1200	1200	1070	1110	3.36	1170	1200	1040	1080
	1.5	3.92	1080	1130	960	1010	4.17	1050	1100	930	980
	2.0	4.68	980	1030	880	920	4.98	950	1000	840	890
2.0	1.0	2.90	1200	1200	1110	1160	2.90	1200	1200	1110	1160
	1.5	3.60	1130	1190	1000	1050	3.60	1130	1190	1000	1050
	2.0	4.30	1030	1080	920	960	4.30	1030	1080	920	960
2.5	1.0	2.65	1200	1200	1160	1200	2.65	1200	1200	1160	1200
	1.5	3.29	1190	1200	1050	1090	3.29	1190	1200	1050	1090
	2.0	3.93	1080	1130	960	1010	3.93	1080	1130	960	1010
3.0	1.0	2.41	1200	1200	1200	1200	2.41	1200	1200	1200	1200
	1.5	2.99	1200	1200	1100	1140	2.99	1200	1200	1100	1140
	2.0	3.57	1140	1190	1010	1050	3.57	1140	1190	1010	1050

Note: These values are for use with steel supports with a minimum thickness of 1.0mm BMT G550.

Design Criteria

The following criteria was used in the development of the tables:

1. Region C with design return period of 500 years.
2. V_r = Fc66m/s (strength limit state), with Fc = 1.05
3. $M_s/M_d/M_d$ = 1.00
4. $K_{c,e} = K_{c,i}$ = 0.90

Height (m)	Terrain/Height Multiplier (Mz,cat)				
	1.0	1.5	2.0	2.5	3.0
≤**3.0**	0.99	0.95	0.91	0.87	0.83
≤**5.0**	1.05	0.98	0.91	0.87	0.83

Pressure Coefficients:
Internal $C_{p,i}$ = +0.70
External $C_{p,e}$ = -0.65

Limitations

1. Design pressures and maximum allowable spans are based on four or eight fasteners per sheet per support.
2. Maximum allowable spans are based on design pressures for ultimate limit state only. If serviceability is a design consideration, end and internal spans shall be limited to 900mm in Terrain Category 2.0-3.0 and 800mm in Terrain Category 1.0-1.5.
3. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
4. When a local pressure factor (KI) of 3.0 is required refer to the Design Pressure table for individual analysis.
5. Refer AS/NZS 1170.2 for definition of local pressure zones.

Fixing Recommendations

Maxirib sheets should be laid into the prevailing wind. They should be fixed within the recommended support spacings. Side lap fixing is recommended at no greater than 300mm centres for external applications. For internal applications where support spacings exceed 1000mm it is recommended side laps are fastened mid-span. Use either 8x12 mm self drill stitching screws (with seal) or 3.2 mm sealed blind rivets.

Maintenance Requirements

The performance of Maxirib over time depends on its corrects application and maintenance. Maintenance should be performed as often as is required to remove any dirt, salt and pollutants. Where Maxirib is used in severly corrosive environments, cleaning should be performed more often. It is important that screws have the same life expectancy as the Maxirib cladding you have specified. Packs of Maxirib should always be kept dry and stored above ground level on site. If the sheets have become wet, they should be separated, wiped and placed in the open to dry. Refer to the Stratco "Selection, Use and Maintenance" brochure for more detailed information about the correct use and maintenance of this product.

Notes

1. Cyclonic Fatigue Testing in accordance with AS4040.3, Methods of testing sheet roof and wall cladding, Method 3: Resistance to wind pressure for cyclonic regions.
2. Design Criteria are determined in accordance with AS/NZS 1170.2:2011 Wind Actions.
3. Maxirib Walling Cyclonic Testing, Report No. 194, 06/2013, Stratco Testing Facility, Gepps Cross, South Australia.

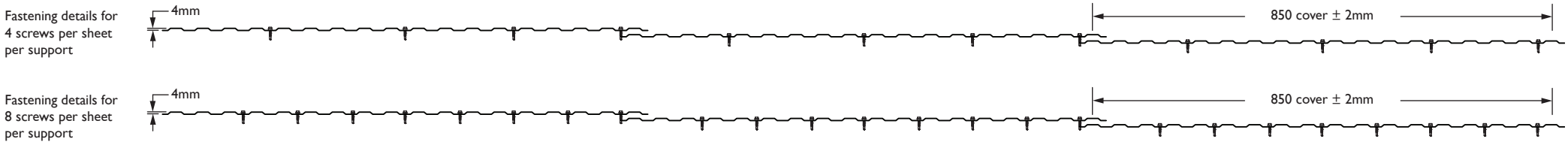
MAXIRIB WALL CLADDING

Cyclonic Region D

0.42mm BMT G550 AZ150

July 2013

WALLING



Drawing not to scale

Design Pressures - Strength Limit State Capacity (kPa)						
Span (mm)	8 screws per sheet			4 screws per sheet		
	Single	End	Internal	Single	End	Internal
450	10.02	10.02	10.96	10.02	10.02	10.96
600	9.20	9.20	10.06	8.00	8.00	8.75
900	5.50	5.50	6.01	4.50	4.50	4.92
1200	3.25	3.25	3.55	2.50	2.50	2.73

Fastener Details		
Steel	Minimum 1.0mm (BMT)	Class 4 12-14x20mm Hex head self drilling screws with neoprene washer.
Timber	Hardwood (F11)	Class 4 minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.
	Softwood (F5)	Class 4 minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.

Maximum Allowable Spans (mm)											
		3m Maximum Height					5m Maximum Height				
Terrain Category	KI	Pz (kPa)	8 screws per sheet		4 screws per sheet		Pz (kPa)	8 screws per sheet		4 screws per sheet	
			End	Internal	End	Internal		End	Internal	End	Internal
1.0	1.0	5.53	890	940	790	840	6.22	830	880	730	780
	1.5	6.87	770	820	680	730	7.72	700	750	610	660
	2.0	8.20	670	720	580	630	9.22	590	650	500	560
1.5	1.0	5.09	940	990	830	880	5.42	900	950	800	850
	1.5	6.32	820	870	720	770	6.73	780	830	690	740
	2.0	7.55	710	770	630	680	8.03	680	730	590	640
2.0	1.0	4.67	980	1030	880	920	4.67	980	1030	880	920
	1.5	5.80	870	920	770	810	5.80	870	920	770	810
	2.0	6.93	760	820	670	720	6.93	760	820	670	720
2.5	1.0	4.27	1030	1080	920	960	4.27	1030	1080	920	960
	1.5	5.30	920	960	810	860	5.30	920	960	810	860
	2.0	6.33	820	870	720	770	6.33	820	870	720	770
3.0	1.0	3.89	1090	1140	970	1010	3.89	1090	1140	970	1010
	1.5	4.83	970	1020	860	900	4.83	970	1020	860	900
	2.0	5.76	870	920	770	820	5.76	870	920	770	820

Note: These values are for use with steel supports with a minimum thickness of 1.0mm BMT G550.

Design Criteria

The following criteria was used in the development of the tables:

1. Region D with design return period of 500 years.
2. $V_r = F_D 80$m/s (strength limit state), with $F_D = 1.10$
3. $M_s/M_d/M_d = 1.00$
4. $K_{c,e} = K_{c,i} = 0.90$

Height (m)	Terrain/Height Multiplier (Mz,cat)				
	1.0	1.5	2.0	2.5	3.0
≤3.0	0.99	0.95	0.91	0.87	0.83
≤5.0	1.05	0.98	0.91	0.87	0.83

Pressure Coefficients:
Internal $C_{p,i} = +0.70$
External $C_{p,e} = -0.65$

Limitations

1. Design pressures and maximum allowable spans are based on four or eight fasteners per sheet per support.
2. Maximum allowable spans are based on design pressures for ultimate limit state only. If serviceability is a design consideration, end and internal spans shall be limited to 850mm in Terrain Category 2.0-3.0 and 750mm in Terrain Category 1.0-1.5.
3. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
4. When a local pressure factor (KI) of 3.0 is required refer to the Design Pressure table for individual analysis.
5. Refer AS/NZS 1170.2 for definition of local pressure zones.

Fixing Recommendations

Maxirib sheets should be laid into the prevailing wind. They should be fixed within the recommended support spacings. Side lap fixing is recommended at no greater than 300mm centres for external applications. For internal applications where support spacings exceed 1000mm it is recommended side laps are fastened mid-span. Use either 8x12 mm self drill stitching screws (with seal) or 3.2 mm sealed blind rivets.

Maintenance Requirements

The performance of Maxirib over time depends on its correct application and maintenance. Maintenance should be performed as often as is required to remove any dirt, salt and pollutants. Where Maxirib is used in severly corrosive environments, cleaning should be performed more often. It is important that screws have the same life expectancy as the Maxirib cladding you have specified. Packs of Maxirib should always be kept dry and stored above ground level on site. If the sheets have become wet, they should be separated, wiped and placed in the open to dry. Refer to the Stratco "Selection, Use and Maintenance" brochure for more detailed information about the correct use and maintenance of this product,

Notes

1. Cyclonic Fatigue Testing in accordance with AS4040.3, Methods of testing sheet roof and wall cladding, Method 3: Resistance to wind pressure for cyclonic regions.
2. Design Criteria are determined in accordance with AS/NZS 1170.2:2011 Wind Actions.
3. Maxirib Walling Cyclonic Testing, Report No. 194, 06/2013, Stratco Testing Facility, Gepps Cross, South Australia.