MONOCLAD®
ROOF AND WALL CLADDING

Product Technical Manual

Now available Stramit MonoLap®
Roof Lap Joint System
**SELECTION AND SPECIFICATION**

**FM Global approved when installed in accordance with Approval Standard FM 4471 (RoofNav Specification)**

**FEATURES/BENEFITS**
- Economical – unique blend of characteristics provides a low installed cost.
- Simple Installation – through fixing and easy notching of flashings.
- 762mm Cover – quick installation and easy handling.
- Hi-tensile Steel – lightweight and high strength.
- Deep Ribs – provide excellent spanning capability with good water carrying capacity.
- Domed Crest – provides greater foot traffic performance.
- Anti-capillary Side Laps – gives improved weather structure.
- 2° Minimum Pitch – reduces support structure.
- Fully Tested – a full range of load performance tables to suit almost any application.

**APPLICATIONS**
The visual appeal, strength, wide cover, light weight and weather resistance of Monoclad® cladding make it perfect for all commercial roofing and walling applications. Its excellent strength and ease of assembly allow for long, economical spans. The large water-carrying capacity and weather-tightness permit very low roof pitches, leading to economies in the building structure.

Monoclad® cladding may also be used for domestic applications.

Monoclad® cladding is only intended for use in commercial/industrial/residential roof or wall cladding applications. Do not use for any other purpose.

**MATERIALS**
Monoclad® cladding is manufactured from high-tensile G550 colour coated steel, aluminium-zinc-magnesium or zinc-aluminium alloy coated steel. In some locations galvanised and severe environment colour coated steel may be available by arrangement. Colour coated steels are in accordance with AS/NZS 2728 – Category 3 and, for the substrate, with AS1397. Aluminium-zinc-magnesium alloy coated AM100/AM125, zinc-aluminium alloy coated AZ150 and galvanised Z450 conform to AS1397.

Stramit has a comprehensive range of colours as standard. Ask your nearest Stramit location for colour availability.

**MONOCLAD® CLADDING - SHEETING MASS (kg/m² of roof area)**

<table>
<thead>
<tr>
<th>SHEETING MASS</th>
<th>ZINCALUME®</th>
<th>COLORBOND®</th>
<th>GALVANISED</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.420mm BMT</td>
<td>4.28</td>
<td>4.35</td>
<td>4.65</td>
</tr>
<tr>
<td>0.480mm BMT</td>
<td>4.86</td>
<td>4.93</td>
<td>5.23</td>
</tr>
</tbody>
</table>

**ADVERSE CONDITIONS**
Monoclad® roof and wall cladding will give excellent durability in almost all locations. It is however important to choose the correct coating for each application environment as shown in the table below. Durability recommendations do vary based on the application of the product, in roofing or walling installations. Please read the tables below carefully.

**COMPATIBILITY**
All building products need to be checked for compatibility with adjacent materials. These checks need to be for both direct contact between materials, and where water runs from one material to another. The following guidelines generally avoid material incompatibility:
- For zinc-aluminium/aluminium-zinc-magnesium alloy coated steel, colour coated steel and galvanised steel roofs avoid copper, lead, green or treated timber, stainless steel and mortar or concrete.
- In addition galvanised steel roofs should not receive drainage from aluminium or any inert materials, such as plastics, glass, glazed tiles, colour coated and zinc-aluminium/aluminium-zinc-magnesium alloy.
- Contact Stramit for more detailed information.

**TESTING**
Stramit has in-house, purpose built, testing equipment used to design, develop and improve products for the Australian market. In addition many Stramit products are tested or witnessed by independent organisations. These include:
- Cyclone Testing Station (James Cook University)
- University of Technology, Sydney

This ongoing research and development activity ensures that Stramit remains at the forefront of innovation, design and consumer information.

**ARCHITECTURAL SPECIFICATION**
This specification can be found on the Stramit website and can be easily downloaded onto your documentation.

The roof/walling shall be 0.42 (or 0.48) mm BMT Monoclad® cladding in continuous lengths with trapezoidal ribs approximately 29mm high, spaced at 190mm centres. Sheeting material shall be protected steel sheet to Australian Standard AS1397, with a minimum yield stress of 550MPa (Grade G550) and an AM100/AZ150 coating with an oven-baked paint film of selected colour, or a plain AM125/AZ150 coating.

The sheeting shall be fixed to the purlins/girts in accordance with the manufacturer’s recommendations. Suitable fixing screws in accordance with Australian Standards AS3566, Class 3, shall be used at every rib at every support with side lap fasteners installed at mid span if required. Sheets shall be laid in such a manner that the approved side laps face away from the prevailing weather. A minimum of 50mm shall be provided for projection into gutters.

Flashings shall be supplied in compatible materials as specified; minimum cover of flashing shall be 150mm. All sheeting shall be fixed in a workman-like manner, leaving the job clean and weathertight. Repair minor blemishes with touch-up paint supplied by the roof manufacturer. All debris (nuts, screws, cuttings, filings, etc.) shall be cleaned off daily.

**IMPORTANT NOTICE AND DISCLAIMER**
This specification is general in nature only. Before application in a particular situation, Stramit recommends that you obtain separate independent professional expert advice concerning the suitability of product(s) and information in respect of the application proposed. While Stramit accepts its legal obligations, for reasons (including but not limited to the extent and form of any law), Stramit disclaims all liability (including liability for negligence) for all loss and damage resulting from the use of the information provided in this brochure.
SPANS

The spans shown below take account of ‘normal’ foot traffic and wind resistance including local pressure zone effects. Pressures are based on AS4055 or AS/NZS1170.2. Where the two standards differ, the worst case has been taken for each classification. Data should only be used for buildings 7m or less in height, 1000m² or less in area, where both length and width exceed the building height and site is unaffected by land topography.

**MONOCLAD® CLADDING - MAXIMUM SPAN CHART (mm)**

<table>
<thead>
<tr>
<th>Pressure (kPa)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.42</td>
<td>4.00</td>
<td>4.50</td>
</tr>
<tr>
<td>0.48</td>
<td>4.40</td>
<td>5.00</td>
</tr>
</tbody>
</table>

* *Where roof pitch is less than 10 degrees, use spans given in red italics for roof corners. Internal spans must have both ends spans 20% shorter. 1C: Terrain category F5, F5, NS: Full, partial and no shielding. Internal pressure coefficient 0.32/0.5.*

Values are only valid for use with steel members of 1.5mm or thicker. Where thinner supports are used, fastener capacity must be checked. Refer to Stramit® Top Hat & Batten Technical Manual for more information.

For more specific applications, Monoclad® cladding must be designed to the pressures and foot traffic limitations below. Roof spans may exceed those shown in this table, provided the wind pressure and foot traffic limits are not exceeded.

**PRESSURES**

**MONOCLAD® CLADDING - SERVICEABILITY LIMIT STATE CAPACITY**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Tensioners per sheet</th>
<th>Span (mm)</th>
<th>Serviceability (kPa) at the spans (mm) shown</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.42</td>
<td>4</td>
<td>700</td>
<td>5.47</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800</td>
<td>5.00</td>
</tr>
<tr>
<td>0.48</td>
<td>4</td>
<td>1000</td>
<td>4.57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1200</td>
<td>4.06</td>
</tr>
</tbody>
</table>

**MONOCLAD® CLADDING - SERVICEABILITY LIMIT STATE CAPACITY (Non-cyclic)**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Tensioners per sheet</th>
<th>Span (mm)</th>
<th>Serviceability (kPa) at the spans (mm) shown</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.42</td>
<td>4</td>
<td>700</td>
<td>8.67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800</td>
<td>7.33</td>
</tr>
<tr>
<td>0.48</td>
<td>4</td>
<td>1000</td>
<td>9.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1200</td>
<td>8.17</td>
</tr>
</tbody>
</table>

**MONOCLAD® CLADDING - FUNCTIONAL LIMIT STATE CAPACITY**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Tensioners per sheet</th>
<th>Span (mm)</th>
<th>Functional (kPa) at the spans (mm) shown</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.42</td>
<td>4</td>
<td>700</td>
<td>6.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800</td>
<td>6.89</td>
</tr>
<tr>
<td>0.48</td>
<td>4</td>
<td>1000</td>
<td>7.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1200</td>
<td>7.33</td>
</tr>
</tbody>
</table>

**FOOT TRAFFIC**

Foot traffic limits for Monoclad® cladding are shown for three alternate foot traffic categories. These are:

- High Maintenance - for applications with repeated maintenance, particularly where personnel may be unfamiliar with correct procedures for walking on metal roofs.
- Normal - based on traditional expectations, with moderate maintenance foot traffic using designated foot paths.
- Controlled - for spans that conform to AS1562.1 with 13kN load as specified in AS/NZS1170.1 for R2

*Other Roofs. These require minimal foot traffic only on the designated footpath. Suggested for use only where occasional aesthetic imperfections from foot traffic are acceptable.

**MONOCLAD® CLADDING - FOOT TRAFFIC LIMITED SPANS (mm)**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Tensioners per sheet</th>
<th>Span Type</th>
<th>Foot traffic limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.42</td>
<td>4</td>
<td>Internal</td>
<td>1700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal</td>
<td>1700</td>
</tr>
<tr>
<td>0.48</td>
<td>4</td>
<td>Internal</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal</td>
<td>800</td>
</tr>
</tbody>
</table>

**MONOCLAD® CLADDING - FOOT TRAFFIC LIMITED SPANS (mm)**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Tensioners per sheet</th>
<th>Span Type</th>
<th>Foot traffic limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.42</td>
<td>4</td>
<td>Internal</td>
<td>1700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal</td>
<td>1700</td>
</tr>
<tr>
<td>0.48</td>
<td>4</td>
<td>Internal</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal</td>
<td>800</td>
</tr>
</tbody>
</table>

**MONOCLAD® CLADDING - MINIMUM ROOF SLOPE (degrees)**

<table>
<thead>
<tr>
<th>Total roof run length (m)</th>
<th>Slope 1 (degrees)</th>
<th>Slope 2 (degrees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>2.6</td>
<td>2.8</td>
</tr>
<tr>
<td>70</td>
<td>2.6</td>
<td>3.5</td>
</tr>
<tr>
<td>90</td>
<td>2.6</td>
<td>4.5</td>
</tr>
</tbody>
</table>

**WATER CARRYING**

Monoclad® cladding has excellent water-carrying capacity enabling roof slopes to be as low as 2° for many applications. Roof run lengths are the combined lengths of all roof elements contributing to a single pan drainage path. This can include the roof length upstream of a roof penetration that concentrates flow into other pans. The table below gives slopes for 100 year return period rainfall intensity.

**SPRING CURVING**

Monoclad® cladding can be spring-curved, concave and convex, including curved ridges, provided it is sealed at the apex and within the recommended limits below.

**MONOCLAD® CLADDING - SPRING-CURVED RADIi LIMITS (m)**

<table>
<thead>
<tr>
<th>Radius (mm)</th>
<th>Minimum*</th>
<th>Restricted</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.42</td>
<td>70*</td>
<td>135</td>
</tr>
<tr>
<td>0.48</td>
<td>70*</td>
<td>135</td>
</tr>
</tbody>
</table>

*At these radii a maximum support spacing of 300mm applies, and limit state pressure capacities are reduced by 14% for serviceability and 7% for strength. These reductions apply proportionately up to the lowest neutral radius.

For more comprehensive information on spring curving Monoclad® cladding and other Stramit® roofing profiles refer to Stramit’s Spring Curving Guide.

**THERMAL EXPANSION**

All metal roof sheeting is subject to thermal expansion and, where the temperature difference between the sheeting and the structure, this needs to be accommodated. The colour of the sheeting will affect the amount of thermal expansion, and whether the sheet is flat or curved will affect its ability to resist without problems. Sheet lengths should be limited to those shown below.

**MONOCLAD® ROOF AND WALL CLADDING | PRODUCT TECHNICAL MANUAL**

4

**MONOCLAD® ROOF AND WALL CLADDING | PRODUCT TECHNICAL MANUAL**

5

Larger roof run lengths on a single plane support structure can be readily constructed using the Monoclad® Roof Lap Joint System.

For more information on water carrying performance of Monoclad® cladding and other Stramit® roofing profiles refer to Stramit’s Roof Slope Guide.

**DARWIN AREA**

Information on the use of Monoclad® cladding in the Darwin area can be found in deemed-to-comply sheets M/179/01 and M/336/01 in the Darwin Area Manual. These are available from Stramit.
PROCUREMENT

PENDS
Prices on Monoclad® cladding and its accessories can be obtained from your nearest Stramit location or distributor of Stramit® products. As Stramit does not provide an installation service, ask your tradesperson for a supply and fix price. Contact your nearest Stramit location for the names of tradespersons in your area.

RELATED PRODUCTS
Ridge Capping – standard or custom dimensions
Flashings – a range of custom flashings
Filler Strips – top and bottom; for eaves, ridge and joint sealing

Use only where sealing is preferred to ventilation

Insulation & roofing mesh – a range of mesh, Sisalation™, plain & foil backed blanket
Translucent sheeting – fiberglass sheeting in a range of shades and densities

LENGTH
Monoclad® cladding is supplied cut-to-length. When designing or transporting long products ensure that the length is within the limit of the local Transport Authority regulations. The manufacturing tolerance on the length of product supplied is +0.15mm.

ORDERING
Monoclad® cladding can be ordered directly, through distributors, or supplied and fixed from a roofing contractor.

DELIVERY/UNLOADING
Delivery can normally be made within 48 hours, subject to the delivery location, quantity and material availability, or can be at a pre-arranged date and time. Please ensure that suitable arrangements have been made for truck unloading, as this is the responsibility of the receiver. Pack mass may be up to one tonne. When lifting Monoclad® cladding, care should be taken to ensure that the load is spread to prevent damage.

HANDLING/STORAGE
Stramit Monoclad® cladding should be handled with care at all times to preserve the product capabilities and quality of the finish. Packs should always be kept dry and stored above ground level while on site. If the sheets have become wet, they should be separated, wiped and placed in the open to provide drying.

INSTALLATION

FASTENERS
All fastening screws must conform to AS5566 – Class 3. They are to be hexagon headed and for roofing must be used with sealing washers. For connecting to purlins or top hats use:

For steel (1.5mm bmt or greater) – 12 x 45mm self-drilling and threading screws for crest fixing
- 10 x 16mm self-drilling and threading screws for pan fixing to walls
For timber (F11 or better) – 12 x 65mm type 17 screws for crest fixing
- 10 x 25mm type 17 screws for pan fixing to walls

Side Laps – 10 – 16 x 16 self driling and threading screws, or
- 3.2mm diameter sealed aluminium pop rivets

* For steel less than 1.5mm bmt thickness refer to Stramit® Top Hats & Battens Product Technical Manual.

ACCESSORIES

Monolap® roof lap joint system – supplied in a 762mm roll to cover 10 sheets
Monosky® joint system for use with translucent sheeting

SITE INDUCTION
Consideration should be given to handling and installation issues as part of site induction safety procedures. Specific consideration should be given to pack handling, avoidance of cuts, trips, slips and falls, long sheet handling particularly in windy conditions, sheet cutting procedures and surface temperature on sunny days. Personal Protection Equipment (PPE) should always be used.

INSTALLATION
Monoclad® cladding is readily installed with or without fibreglass insulation blanket. If practical lay sheets in the opposite direction to prevailing weather.

Installation of Monoclad® cladding is a straightforward procedure using the following fixing sequence:

1) Ensure all purlins are in line and correctly installed and that mesh and blanket (if specified) are in place.

2) Position and fix the first sheet ensuring the correct sheet overhangs (minimum 50mm). Ensure that screws are not overtightened.

3) Continue to fix subsequent sheets checking that sheet ends at the lower edge are exactly aligned.

It is important that the underlap of one sheet does not protrude beyond the overlap of the next – if this is unavoidable, the underlap must be trimmed locally or water ‘drawback’ may occur.

4) Measure the overall cover width at top and bottom of the sheets from time to time to avoid ‘fanning’.

5) For roof spans exceeding 900mm and wall spans exceeding 1200mm, stitch the sidelaps at midspan.

6) Turn up the pans at the upper roof edge, turn down the pan at the lower edge and install flashings. Fix flashings according to AS1562.1.

7) Clean up the roof after each days work, removing all screws, cuttings, sawdust and etc. and leave roof clean and watertight.

INSULATION
Monoclad® cladding is suitable for use with insulating blanket. Glasswool blanket up to 50mm thickness can be readily used. Increased thicknesses require longer fasteners and greater care in installation. Increased thicknesses up to 100mm require fasteners that are 20mm longer. However, care must be taken when fixing the sheet. Stand on pans either side of rib to compress the additional material and fix fasteners until seal is touching. Do not overtighten fasteners.

WALKING
As with all roofing products, we recommend extra caution be taken when walking on the roof. When walking on Monoclad® roofing always wear flat rubber soled shoes and place feet only in the pans, taking care to avoid the last pan or two near edges of the metal roof area.

GOOD PRACTICE
Stramit recommends that good trade practice be followed when using this product, such as that found in Australian Standards Handbook HB39.

SHEET HANDLING
Cut resistant or leather gloves should be worn when handling product. Foot protection should be worn when handling and transporting product.

CUTTING
Monoclad® cladding can be easily cut, where required, using a power saw with a steel cutting blade or a power nibbler and, for localised cutting, tin snips. Avoid the use of abrasive discs as these can cause burred edges and coating damage. Please dispose of any off-cuts carefully.

ADDITIONAL INFORMATION

OVERLAPPING ROOF SHEETS
For long run roofs that exceed the maximum recommended sheet length, and for awkward sites, where truck or crane access is limited, the MonoLap® roof lap joint system and complementary Monosky® roof lap joint system for translucent sheeting are available. This enables overlapping sheets to be simply and reliably attached without the need for a traditional step joint. The roof support structure can be designed and fixed in a single plane. Refer to MonoLap® roof lap joint system product technical supplement for full details of the product. Installation methods are shown in the MonoLap® and Monosky® installation supplements provided with each lot of units.

MAINTENANCE
Exterior surfaces of metal products unwashed by rain can benefit from occasional washing to remove build-up of corrosive salts. Walls beneath eaves or awnings is such a situation.

FURTHER INFORMATION
As well as our standard range of Technical Manuals, Installation Leaflets, Case Studies and other promotional literature Stramit has a series of Guides to aid design. These include:

- Roof Slope Guide
- Foot Traffic Guide
- Concealed Fixed Decking
- Cyclicon Areas
- Spring Curving Guide

Please contact your nearest Stramit location for any of these guides or other literature.

OTHER PRODUCTS
Stramit offers a wide range of building products, including:

- Purlins and girts
- Formwork decking
- Roof and wall sheeting
- Gutters and downpipes
- Fascias
- Custom flashings

REFERENCES
In preparing this document reference has been made to:

- Standards Australia Handbook - HB39 (Installation code for metal roof and wall cladding)
- BlueScope Steel – Technical Bulletin TB-4 (Maintenance of Colorbond prepainted steel roofing)
- BlueScope Steel – Technical Bulletin TB-1 (Steel roofing and walling products – selection guide)
## CONTACT US

Visit stramit.com.au or contact us using the details below.

<table>
<thead>
<tr>
<th>REGION</th>
<th>LOCATION</th>
<th>CONTACT DETAILS</th>
<th>TECHNICAL ENQUIRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW &amp; ACT</td>
<td>SYDNEY 33-83 Quarry Rd, Erskine Park NSW 2759</td>
<td>Ph 02 9834 0909 Fax 02 9834 0988</td>
<td>Ph 02 9834 0964</td>
</tr>
<tr>
<td></td>
<td>CANBERRA 4 Bass St, Queanbeyan NSW 2620</td>
<td>Ph 02 6298 2500 Fax 02 6298 2533</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COFFS HARBOUR 6 Mansbridge Dr, Coffs Harbour NSW 2450</td>
<td>Ph 02 6656 3800 Fax 02 6656 3808</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NEWCASTLE 17 Nelson Rd, Cardiff NSW 2285</td>
<td>Ph 02 4041 3400 Fax 02 4041 3423</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ORANGE 51 Leewood Dr, Orange NSW 2800</td>
<td>Ph 02 6360 9200 Fax 02 6360 9211</td>
<td></td>
</tr>
<tr>
<td>VIC</td>
<td>MELBOURNE 3/1464 Ferntree Gully Rd, Knoxfield VIC 3180</td>
<td>Ph 03 9237 6300 Fax 03 9237 6399</td>
<td>Ph 03 9237 6353</td>
</tr>
<tr>
<td></td>
<td>ALBURY 18 Ariel Dr, Albury NSW 2640</td>
<td>Ph 02 6092 3700 Fax 02 6092 3766</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BENDIGO Lot 7-9 Ramsay Court, Kangaroo Flat VIC 3555</td>
<td>Ph 03 5448 6400 Fax 03 5447 9677</td>
<td></td>
</tr>
<tr>
<td>TAS</td>
<td>HOBART 57 Crooked Billet Dr, Brighton TAS 7030</td>
<td>Ph 03 6262 8788 Fax 03 6262 8712</td>
<td>Ph 03 9237 6353</td>
</tr>
<tr>
<td>SA</td>
<td>ADELAIDE 11 Stock Rd, Cavan SA 5094</td>
<td>Ph 08 8219 2000 Fax 08 8219 2021</td>
<td>Ph 03 9237 6353</td>
</tr>
<tr>
<td>SOUTH QLD</td>
<td>BRISBANE 57-71 Platinum St, Crestmead QLD 4132</td>
<td>Ph 07 3803 9999 Fax 07 3803 1499</td>
<td>Ph 07 3803 9869</td>
</tr>
<tr>
<td></td>
<td>MARYBOROUGH 10 Activity St, Maryborough QLD 4650</td>
<td>Ph 07 4123 9500 Fax 07 4123 9508</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROCKHAMPTON 41 Johnson St, Parkhurst QLD 4702</td>
<td>Ph 07 4921 5600 Fax 07 4921 5608</td>
<td></td>
</tr>
<tr>
<td>NORTH QLD</td>
<td>CAIRNS 53 Vickers St, Edmonton QLD 4869</td>
<td>Ph 07 4034 6555 Fax 07 4034 6511</td>
<td>Ph 07 3803 9869</td>
</tr>
<tr>
<td></td>
<td>TOWNSVILLE 402-408 Bayswater Rd, Garbutt QLD 4814</td>
<td>Ph 07 4412 3900 Fax 07 4412 3909</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MACKAY 6 Brickworks Court, Glenella QLD 4740</td>
<td>Ph 07 4965 4000 Fax 07 4965 4012</td>
<td></td>
</tr>
<tr>
<td>NT</td>
<td>DARWIN 55 Albatross St, Winnellie NT 0820</td>
<td>Ph 08 7922 4600 Fax 08 7922 4608</td>
<td>Ph 07 3803 9869</td>
</tr>
<tr>
<td>WA</td>
<td>PERTH 605-615 Bickley Rd, Maddington WA 6109</td>
<td>Ph 08 9493 8800 Fax 08 9493 8899</td>
<td>Ph 07 3803 9869</td>
</tr>
</tbody>
</table>