

Outdoor Structures Australia

*Practical solutions that enhance
community design projects*

Suppliers of premium quality engineered products and design services for the commercial and Government landscaping market - timber boardwalks, timber and steel pedestrian bridges, traffic control products, park shelters and park furniture - and domestic decking and flooring.

Boardwalks



Outdoor Structures' Boardwalk Systems, incorporating Deckwood and Joistwood, deliver exceptional long-term performance in fully weather exposed situations, as a result of Outdoor Structure's in-depth understanding of timber species and characteristics suitable for exterior applications combined with the highest quality in engineering design services, material selection and processing and installation specifications.

Outdoor Structures boardwalk and bridge timber, including Deckwood, our exclusive premium grade hardwood decking, is selected from hardwood species with proven durability and weathering characteristics to ensure a long life and superior long-term performance and enjoyment by users. Manufacturing quality is assured through stringent attention to timber grading and dressing quality in a controlled factory environment.

Optional services include cut-to-length, oiled and pre-drilled decking which allows quicker installation and more efficient utilisation of on-site labour and may produce a superior appearance through the quality control exercised in a factory environment. Tapered decking is also available for curved boardwalks.

Further information and specifications relating to Deckwood are contained in the *Deckwood Selection Guide* with further Engineering details relating to Deckwood and Joistwood contained in the *Boardwalks Design and Engineering Guide*.



Foot Bridges / Vehicle Bridges



Outdoor Structures has developed a range of timber and steel vehicle and pedestrian bridges which may be supplied either fully assembled or in component form. Our bridges are produced to exacting standards of engineering design, material selection, processing and manufacturing, which has seen Outdoor Structure become recognised as one of Australia's leading providers of external structures for Government and commercial use.

Outdoor Structures bridge timber, including Deckwood, is selected from hardwood species of proven durability and weathering characteristics and our boardwalks and bridges are designed by a leading specialist timber engineer, ensuring that they conform to appropriate design standards but are also detailed to deliver long life and superior functional performance and enjoyment by users.

Timber footbridges, though limited to approximately 10 metres in length, are an economical option where the application suits a rustic appearance. Steel footbridges are able to accommodate longer spans and also provide a greater variety of design and aesthetic options. Outdoor Structure's footbridges are designed to meet the requirements of the Austroads Bridge Code and to minimise the vibration problems often associated with large span pedestrian bridges. Bridge decking may be supplied pre-oiled and steel bridges may be supplied in a variety of finishes appropriate to their environment.

Further information on Outdoor Structures bridges is contained in our *Light Bridge Manual*



Commercial Landscaping



Outdoor Structures commercial landscaping products are designed and manufactured to the same exacting standards as our boardwalks and bridges standards, that have resulted in Outdoor Structures being recognised as one of Australia's leading providers of external structures for Government and commercial use.

Outdoor Structures applies its in-depth understanding of timber species and characteristics suitable for exterior applications together with the highest quality in engineering design services, material selection and processing to ensure that each product gives superior long-term performance, is enjoyed by users and remains attractive over its long life.

Our standard range includes park shelters and park furniture, traffic control products including bollards, in a variety of traditional and innovative designs and post-and-rail traffic barriers and fences. We also design and manufacture landscaping products to suit individual requirements.



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Technical Information

TIMBER PROPERTY COMPARISON TO SELECTED ALTERNATIVES

Property	Ref	Spotted Gum* Corymbia maculata	North American Douglas Fir (Coastal)	Teak Tectona grandis	Kwila Intsia spp.	Meranti Light Red	Cedar Western Red Thuja plicata	Jarrah Eucalyptus marginata
Density at 12% moisture kg/m ³	1	1010	560	670	830	560	380	835
Durability class (in ground contact expected life) 2= 15-25 years 4= 1-8 years	1	2	4	2	2	4	2	2
Joint group	1	J1 (high)	J4 (Low)	J3	J2	J4	J5 (V. Low)	J2
Stress grade at structural 2	2	F17	F8	F7	F17	F7	<F4	F11
Hardness	1	VH	S	F	H	S	VS	H
Toughness	3	H	L	M	M	-	L	L

BASIC PERMISSIBLE STRESS PROPERTIES

Bending (F'b)	2	17.0 MPa	8.6 MPa	6.9 MPa	17 MPa	6.9 MPa	4.3 MPa	11 MPa
Modules of elasticity (E)	2	14000 MPa	9100 MPa	7900 MPa	14000 MPa	7900 MPa	6100 MPa	10500 MPa
Tension stress parallel (F't)	2	10.2 MPa	5.2 MPa	4.1 MPa	10.2 MPa	4.1 MPa	2.6 MPa	6.6 MPa
Compression stress parallel (F'c)	2	13.0 MPa	6.6 MPa	5.2 MPa	13 MPa	5.2 MPa	3.3 MPa	8.4 MPa
Compression prep. To gain (F'p)	2	5.2 MPa	2.6 MPa	2.1 MPa	5.2 MPa	2.1 MPa	1.7 MPa	3.3 MPa

References

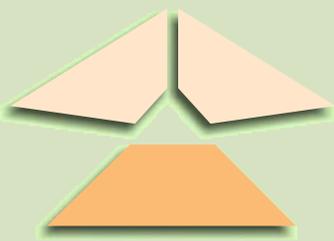
1. Building Timbers - Technical Pamphlet No 1 - Queensland Forest Service 1991
2. Australian Standard 1720.1 Timber Structures Code 1997
3. NAFI - Timber Data File P1 - Timber Species & Properties or AS 1720.2 Timber Structure Code 1990

Abbreviations

Hardness: VH - Very Hard, H - Hard, F - Firm, S - Soft, VS - Very Soft
Toughness: H - 25 Nm and above, M - 15-25 Nm, L - up to 15 Nm

Deckwood & Joistwood's

* Outdoor Structures Australia's Deckwood and Joistwood is selected from Australian hardwood species with proven durability and weathering characteristics particularly Western Queensland Spotted Gum.



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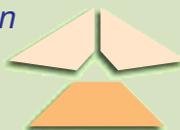
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Outdoor Structures Australia is one of Australia's leading providers of premium quality engineered timber and steel products for the commercial and Government landscaping market, catering primarily to the needs of Government, property developers, landscaping designers and contractors and building contractors. Outdoor Structures also manufactures solid hardwood timber tongue-and-Groove (T&G) flooring and pencil round/shot edge decking for the domestic construction market. The raw material for our boardwalk and bridge timber, flooring and decking is sourced primarily from State owned hardwood forests, managed for sustained yield. As supply from State forests is replaced with supply from plantations, Outdoor Structures will source its raw material from plantations as this resource matures.

Outdoor Structures reputation is founded on an unwavering commitment to delivering client satisfaction through quality and service. This is achieved through integrating an in-depth knowledge of timber species and properties, with the highest quality in engineering design services, material selection and processing and installation specifications, to deliver long-term performance and serviceability across its complete range of external structures and products.

For Technical Information



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Your local contact