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AUSBEAM™

Easier, Lighter Cheaper.

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AUSBEAM™

About:

Introducing AUSBEAM, 1.2mm and 1.5mm thick RHS (Rectangular Hollow Section) designed and engineered to comply with Australian standards. AUSBEAM excels in most applications, offering strength, durability and usability. Manufactured using grade C350 galvanised steel and with an engineered design, AUSBEAM redefines the standards of strength and efficiency.

AUSBEAM isn't just about strength – it's about versatility and affordability. By leveraging state-of-the-art manufacturing techniques, AUSBEAM delivers a product that is not only lighter but also more cost-effective, making high-quality construction accessible to all.

The applications of AUSBEAM are limitless. From sheds to subfloors, AUSBEAM can be utilised into a vast array of structures, offering unparalleled adaptability and ease of use.

The possibilities are boundless, and the future of construction is brighter than ever before. Join the revolution with AUSBEAM – where strength, affordability, and innovation converge.

AUSBEAM Properties:

AUSBEAM	WEB	FLANGE	THICKNESS	GROSS SECTION AREA	MOMENT OF INERTIA		SECTION MODULUS		RADIUS OF GYRATION		YEILD STRENGTH	TENSILE STRENGTH
	mm	mm	mm	mm^2	Ix $10^6\ mm^4$	Iy $10^6\ mm^4$	Zx $10^3\ mm^3$	Zx $10^3\ mm^3$	rx mm	ry mm	MPa	MPa
AUSBEAM100	100	50	1.2	372.04	0.4900	0.1710	9.80	6.84	36.2914	21.4389	350	450
AUSBEAM150	150	50	1.5	492.04	1.6525	0.2425	22.03	9.70	57.9523	22.2001	350	450

The specified kPa (kilopascal) limits apply to AUSBEAM100 and AUSBEAM150. You can be assured that the kPa limits provided are consistent across the entire range of AUSBEAM configurations. This ensures uniformity in performance and reliability, regardless of the configuration you select.

DEAD AND LIVE LOADS	FLOOR JOISTS	FLOOR BEARES	RAFTERS
	kPa	kPa	kPa
LIVE LOAD	1.5	1.5	0.25
DEAD LOAD	0.4	0.4	0.2

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AUSBEAM100

With the engineered 1.2mm thick design and dimensions of 50x100mm AUSBEAM100 ensures usability, strength, and durability in every project.

Diameter: 50x100mm

Thickness: 1.2mm

Length: 6000mm

Material: Galvanized Steel Grade C350

Australian Standards:
AS1170.0 - AS1170.1 - AS4600 - AS1163 - AS4055

SPAN TABLES:

FLOOR JOISTS	MAX. SPAN (L) MM			
	450mm CENTRES		600mm CENTRES	
	SINGLE SPAN	CONTINUOUS SPAN	SINGLE SPAN	CONTINUOUS SPAN
AUSBEAM100	3000	4000	2700	3600

RAFTERS	RAFTER SPACING (MM)	MAX. RAFTER SPAN (L) MM					
		WIND CATEGORY					
		N1	N2	N3	N4	N5	N6
AUSBEAM100	900	3800	3800	3500	3100	2500	2100
	1200	3500	3500	3200	2700	2200	1800
	1500	3200	3200	2900	2400	1900	1600
	1800	3000	3000	2700	2200	1700	1500
	2100	2900	2900	2500	2000	1600	1400

FLOOR BEARERS	FLOOR LOAD WIDTH (FLW) MM	MAX. SPAN (L) MM	
		SINGLE SPAN	CONTINUOUS SPAN
AUSBEAM100	1000	2300	2700
	1200	2100	2500
	1400	2000	2300
	1600	1900	2100
	1800	1800	2000
	2000	1800	1900
	2200	1700	1800
	2400	1700	1700
	2600	1600	1700
	2800	1600	1600
	3000	1500	1500

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AUSBEAM150

With the engineered 1.5mm thick design and dimensions of 50x150mm AUSBEAM150 ensures usability, strength, and durability in every project.

Diametre: 50x150mm

Thickness: 1.5mm

Length: 6000mm

Material: Galvanized C350 Steel.

Australian Standards:
AS1170.0 - AS1170.1 - AS4600 - AS1163 - AS4055

SPAN TABLES:

FLOOR JOISTS	MAX. SPAN (L) MM			
	450mm CENTRES		600mm CENTRES	
	SINGLE SPAN	CONTINUOUS SPAN	SINGLE SPAN	CONTINUOUS SPAN
AUSBEAM150	4500	6100	4100	5400

RAFTERS	RAFTER SPACING (MM)	MAX. RAFTER SPAN (L) MM					
		WIND CATEGORY					
		N1	N2	N3	N4	N5	N6
AUSBEAM150	900	5800	5800	5300	4700	3800	3200
	1200	5300	5300	4800	4000	3300	2800
	1500	4900	4900	4500	3600	2900	2500
	1800	4600	4600	4100	3300	2700	2300
	2100	4300	4300	3800	3000	2500	2100

FLOOR BEARERS	FLOOR LOAD WIDTH (FLW) MM	MAX. SPAN (L) MM	
		SINGLE SPAN	CONTINUOUS SPAN
AUSBEAM150	1000	3400	4200
	1200	3200	3800
	1400	3100	3500
	1600	2900	3300
	1800	2800	3100
	2000	2700	2900
	2200	2600	2800
	2400	2500	2600
	2600	2500	2500
	2800	2400	2400
	3000	2400	2400
	3200	2300	2300
	3400	2200	2200
	3600	2100	2100
	3800	2100	2100
	4000	2000	2000

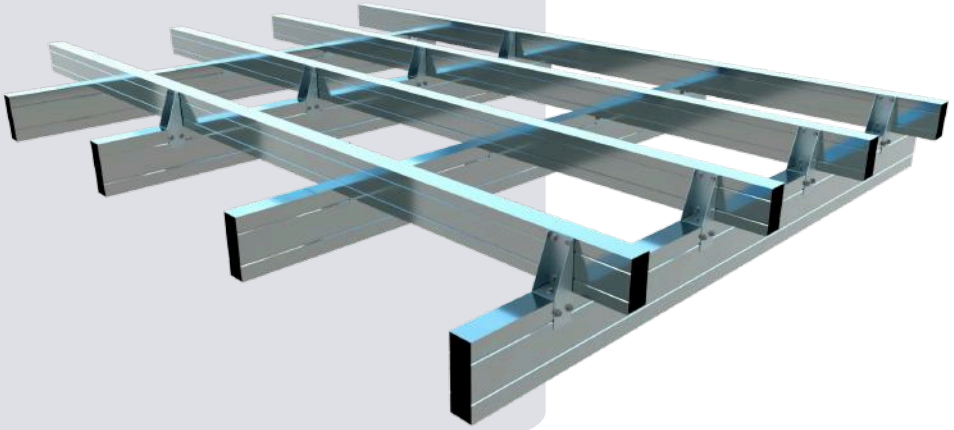
Subfloors:

AUSBEAM excels in subfloors due to its engineered design, manufactured using C350 galvanised steel it is resistant to moisture and structural strain, ensuring stability and longevity, making it ideal for residential, commercial, and industrial use.

EXAMPLE:

Bearers: AUSBEAM150

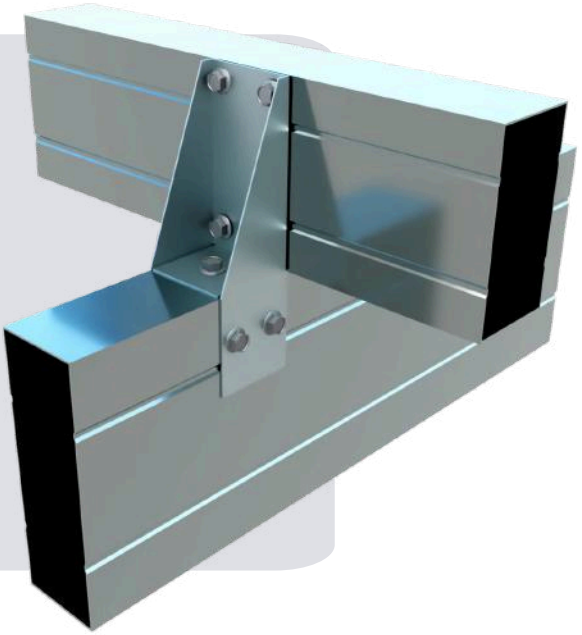
Joists: AUSBEAM100



Connect Subfloors:

Bracket: JZW100

Fasteners: Minimum 10 gauge Metal Teks



Verandahs:

AUSBEAM is perfect for verandahs, manufactured and engineered to endure outdoor conditions. It withstands sunlight, rain, and temperature changes, ensuring long-lasting stability for residential or commercial spaces.

EXAMPLE:

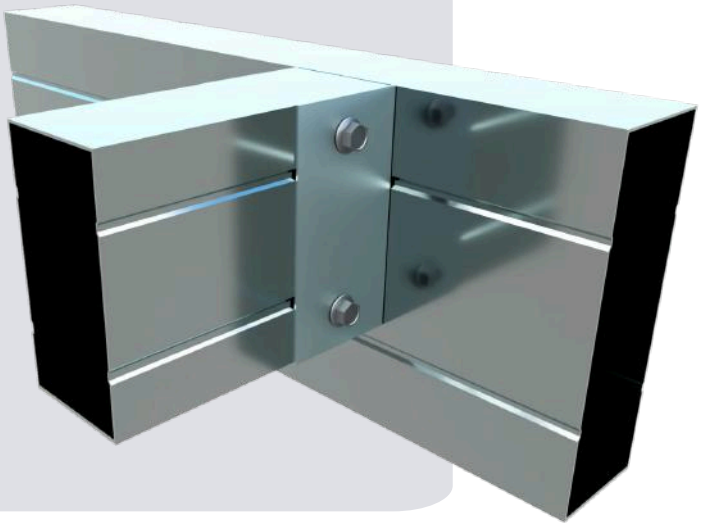
Rafters: AUSBEAM150

Purlins: AUSBEAM100

Connect Verandahs :

Bracket: ZW100

Fasteners: Minimum 10 gauge Metal Teks



Walkways:

AUSBEAM is perfect for constructing walkways, manufactured and engineered to withstand outdoor conditions. It provides a solid foundation, ensuring long-lasting stability, reliability and durability.

EXAMPLE:

Rafters: AUSBEAM150

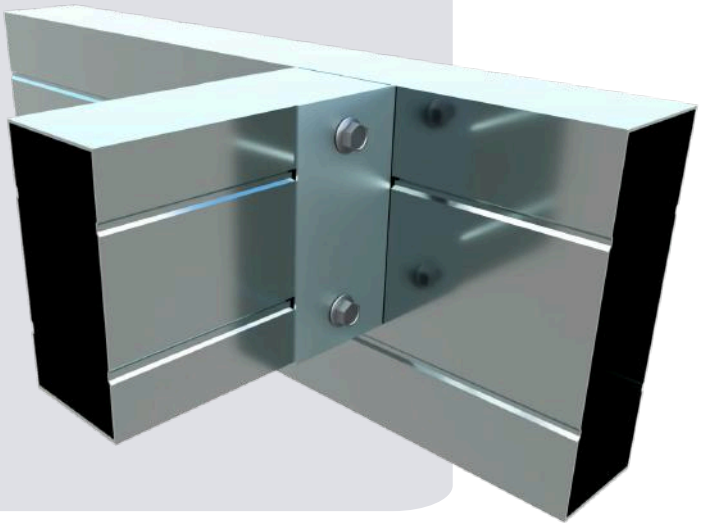
Purlins: AUSBEAM100

Post: 100x100mm SHS

Connect Walkways:

Bracket: ZW100

Fasteners: Minimum 10 gauge Metal Teks



Sheds:

AUSBEAM excels in shed frames, offering strength and durability. Engineered and manufactured using C350 galvanized steel it ensures stability, support and reliability for sheds of any size.

EXAMPLE 1:

Rafters: AUSBEAM100

Purlins: AUSBEAM100

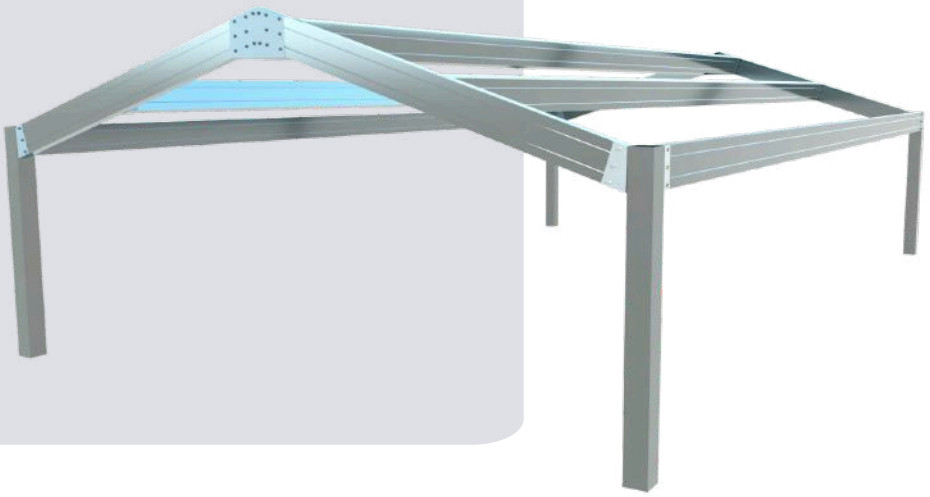
Post: 100x100mm SHS

EXAMPLE 2:

Rafters: AUSBEAM150

Purlins: AUSBEAM150

Post: 100x100mm SHS



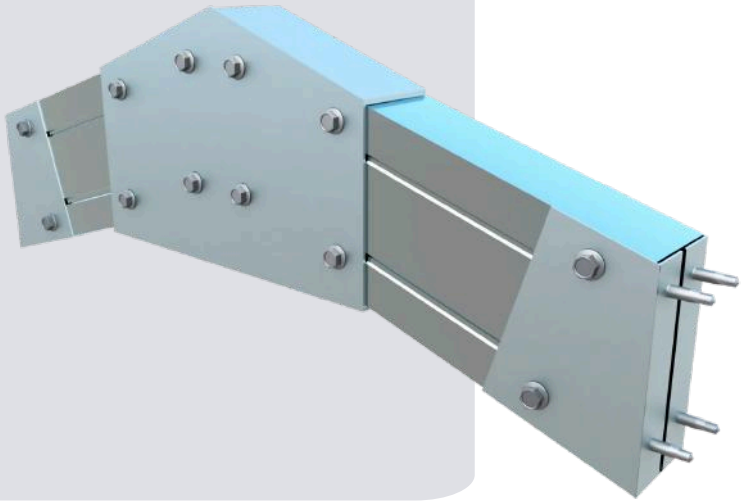
Connect Sheds:

Ensure a sturdy and durable bond by connecting AUSBEAM shed frames with our engineered ZeroWeld range of brackets.

EXAMPLE 1:

Brackets: PZW15-100 / AZW15-100
PZW22-100 / AZW22-100

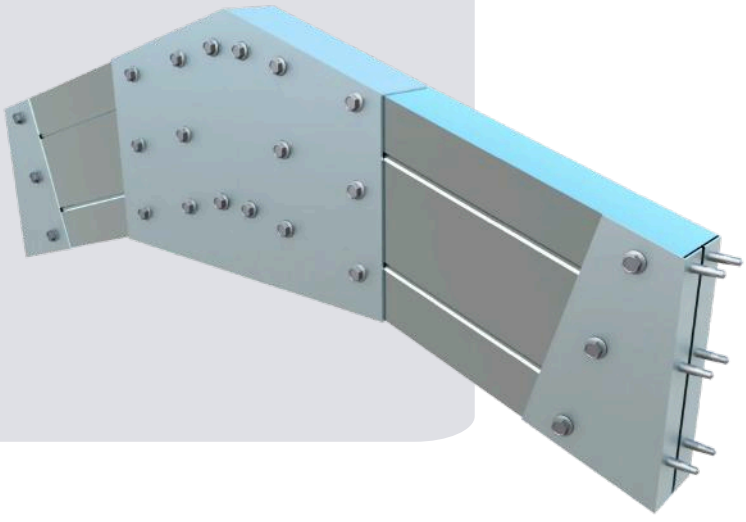
Fasteners: Minimum 10 gauge Metal Teks



EXAMPLE 2:

Brackets: PZW15-150 / AZW15-150
PZW22-150 / AZW22-150

Fasteners: Minimum 10 gauge Metal Teks



Carports:

AUSBEAM is perfect for carports, manufactured and engineered to withstand outdoor conditions. It provides a solid foundation for sheltering vehicles, ensuring long-lasting stability, reliability and durability.

EXAMPLE 1:

Rafters: AUSBEAM150

Purlins: AUSBEAM150

Post: 100x100mm SHS

EXAMPLE 2:

Rafters: AUSBEAM150

Purlins: AUSBEAM100

Post: 100x100mm SHS

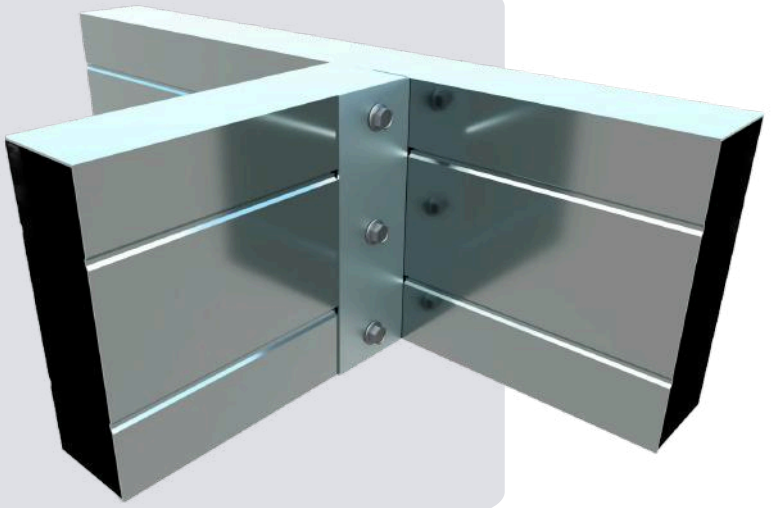
Connect Carports:

Ensure a sturdy and durable bond by connecting AUSBEAM carport structures with our engineered ZeroWeld range of brackets.

EXAMPLE:

Bracket: ZW150

Fasteners: Minimum 10 gauge Metal Teks



EXAMPLE:

Bracket: ZW100

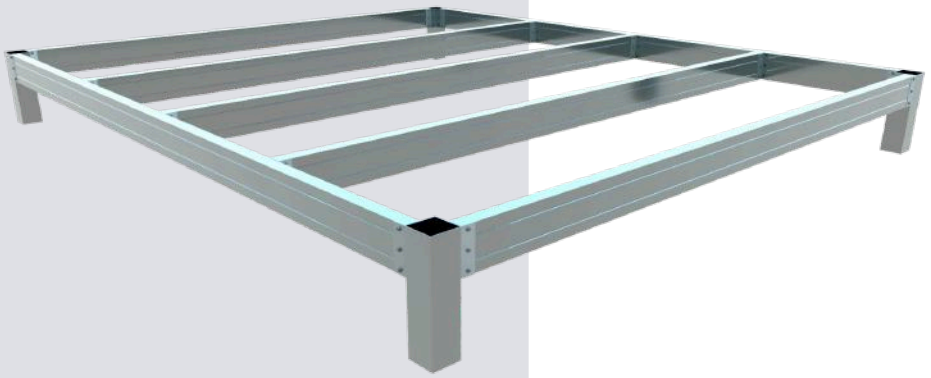
Fasteners: Minimum 10 gauge Metal Teks

Decks:

AUSBEAM excels in deck frames, engineered and manufactured using C350 galvanized steel it is resistant to moisture and structural strain, ensuring stability and longevity, making it ideal for any size deck frame.

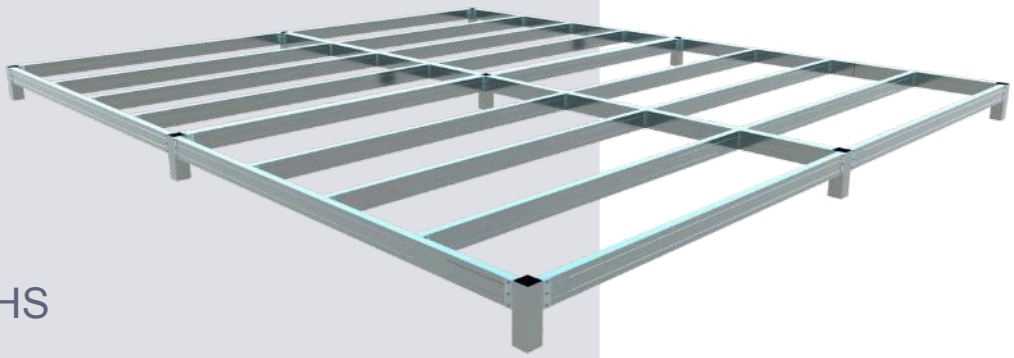
EXAMPLE:

Rafters: AUSBEAM150
Purlins: AUSBEAM150
Post: 100x100mm SHS



EXAMPLE:

Rafters: AUSBEAM150
Purlins: AUSBEAM150
Post: 100x100mm SHS



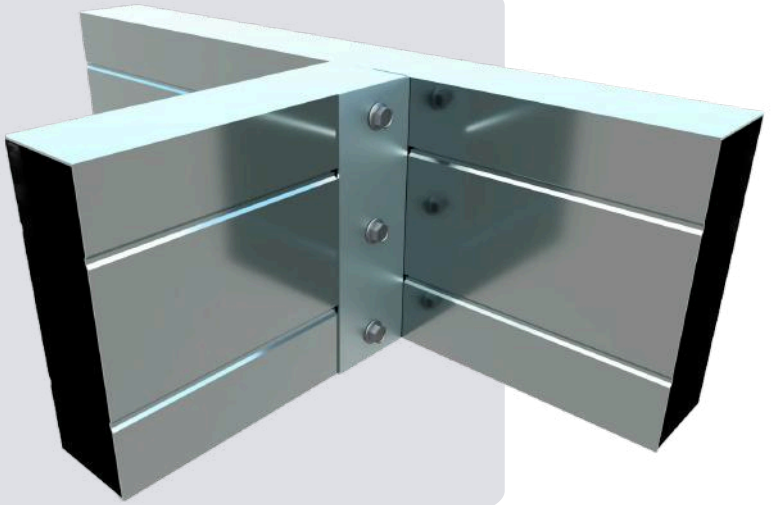
Connect Decks:

Ensure a sturdy and durable bond by connecting AUSBEAM deck frames with our engineered ZeroWeld range of brackets.

EXAMPLE:

Bracket: ZW150

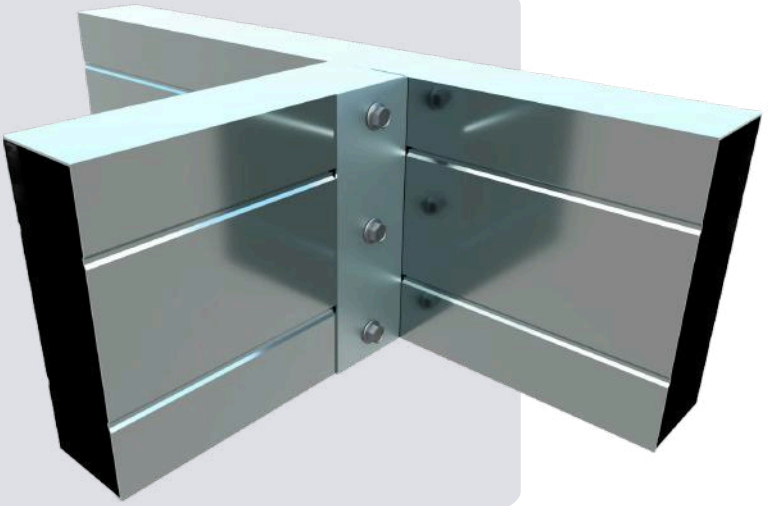
Fasteners: Minimum 10 gauge Metal Teks



EXAMPLE:

Bracket: ZW150

Fasteners: Minimum 10 gauge Metal Teks



Universal Use:

AUSBEAM's versatility extends over a massive range of structures as well, offering robust support and flexibility for a variety of construction projects. Here's a description of smaller structures that can be built using AUSBEAM:

Gazebos and Pergolas: For outdoor living spaces, AUSBEAM provides an ideal solution for building gazebos, pergolas, and other shade structures. Engineered and manufactured to withstand exposure to the elements whilst providing a strong, durable, and sleek design.

Subfloors and Decks: AUSBEAM offers a versatile solution for subfloor and decks. Whether constructing subfloors for buildings, elevated decks for outdoor spaces, or composite decking systems, AUSBEAM ensures durability and stability. Additionally, its use in modular flooring systems and as underlayment for flooring installations highlights its adaptability and ease of installation.

Small Commercial Structures: AUSBEAM is suitable for small-scale commercial construction projects, including small public toilets, bus stop shelters, and park pavilions. Its versatility and durability allow for the creation of many customizable structures that meet the specific needs of businesses and organizations.

Sheds and Carports: AUSBEAM offers an efficient and durable solution for building sheds and carports. Its lightweight construction simplifies assembly, while its strength and durability provide secure storage for tools, equipment, and vehicles, protecting them from the elements.

Agricultural Structures: In rural settings, AUSBEAM can be used to construct agricultural buildings such as barns, stables, and equipment shelters. Its versatility and durability make it an ideal choice for protecting livestock, storing hay and feed, and housing farm machinery, ensuring the efficient operation of agricultural operations.

Australian Standards:

AUSBEAM is a rigorously engineered product that combines precision and innovation to deliver strength and durability whilst being lightweight and easy to use. Crafted from high-quality C350 galvanised steel, each beam is manufactured as per Australian standards, ensuring maximum strength and durability. AUSBEAM offers superior corrosion resistance, making it ideal for harsh Australian environments. With its sleek design and advanced engineering, AUSBEAM sets the benchmark for reliability, safety, and meeting Australian standards with ease.

AS/NZS 1163 Cold-Formed Steel Hollow Sections

AS/NZS 4600 Cold-Formed Steel Structures

AS/NZS 4055 Wind Loads for housing

AS/NZS 1170.0 General Principles

AS/NZS 1170.1 Dead and Live Loads

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