

AXE^{CP} – Car Port Essential



Acceptance Inspection		Document No.: AI_AXE_CP_ES Revision: V1
Client:	Project:	Date:

Table Configuration	A	B	C	D
Tables				
Rows/Table				
Columns/Table				
Supports/Table				
Support spacing				

Mounting Details	
Table tilt	
Module orientation	
Module edge to ground	
Fixing method	

Layout Positioning		
Criterion	Accepted	Rejected
Array set out as per drawings: <i>Distance between tables and position thereof is correct. Post positions and span within 10mm tolerance</i> IM 4 Layout positioning		
Correct layout drawing revision used: <i>Site-specific structure, panel type, tilt and table length match approved drawing.</i> IM 4 Layout positioning		
Post spacing standardised: <i>East–West post spacing is 7.5m / 5m for three-car / two-car configurations; lateral cantilever of rails at table ends is equal unless otherwise specified.</i> IM 4 Layout positioning		

Foundation Fixings		
Criterion	Accepted	Rejected
Foundations are aligned: <i>Where natural gradient exceeds 2% along the table length, corrective measures achieve a maximum slope deviation of 2%.</i> IM 5 Foundation fixings		

Foundation Specifications		
Criterion	Accepted	Rejected
Concrete foundation: <i>Constructed on 150mm G5 layers compacted to 95% MOD, then placed on in-situ material compacted to 93% MOD; within 50mm tolerance in width/length.</i> IM 6 Foundation Specifications		
Concrete strength: <i>Specified at 30 MPa with a minimum curing duration of 7 days before tensioning bolts.</i> IM 6 Foundation Specifications		

Foundation Anchorage		
Criterion	Accepted	Rejected
Foundation connection: <i>M20 hot-dip galvanised rods used with washers at depth stated in the installation manual.</i> IM 7 Foundation Anchorage		
Rebar / securing rod integration: <i>Post integrated with rebar reinforcement through drilled holes for added stability.</i>		
Concrete vibrated: <i>Concrete vibrator used to remove air pockets and ensure concrete fully surrounds the post.</i>		
Adaptor I-Beam Foundation Connection: <i>Flanged I-Beams anchored to cast-in threaded rods, levelled using levelling nuts, void filled with non-shrink grout (< 50 mm).</i> IM 7 Foundation anchorage		
Base Slot Foundation Connection: <i>Base Slot Brackets anchored to the concrete foundation using cast-in threaded rods.</i> IM 7 Foundation anchorage		
Correct fasteners used on connections and torqued according to specification:		

Post Connections		
Criterion	Accepted	Rejected
Adaptor I-Beam Connection: <i>Front and mid Posts positioned between the Adaptor I-Beam plates, holes aligned and secured per the project-specific layout drawing.</i> IM 8 Post connections		
Single Base Slot Bracket Connection: <i>Back Post positioned between the Base Slot Brackets, holes aligned and secured.</i> IM 8 Post connections		
Post Connector Connection if applicable: <i>Post Connectors positioned on both sides of the Post; Diagonal Post secured between the Post Connectors.</i> IM 8 Post connections		
Correct fasteners used on connections and torqued according to specification:		

Mounting/Joining Rafters		
Criterion	Accepted	Rejected
Rafters aligned correctly: <i>Bottom and top ends aligned in both vertical and horizontal planes before final torque.</i> IM 9 Mounting rafters		
Spacer Connection: <i>Left and right Rafter sections joined back-to-back via Spacers per the layout drawing, then secured to the Posts (Post Connection).</i> IM 9 Mounting rafters		
Post Connection: <i>Rafters secured directly to the Posts, aligned to prevent stress on PV modules during later installation.</i> IM 9 Mounting rafters		
Rafter joints correctly seated: <i>Rafter Extensions / joins fully seated and fastened per the Joining Rafters method for this structure.</i> IM 10 Joining Rafters		
Rafter slope: <i>Angle within 1° tolerance.</i>		
Without deformation and damage: <i>Zinc paint touch-ups done on areas where galvanising was damaged.</i>		
Correct fasteners used on connections and torqued according to specification:		

Bracing Installation		
Criterion	Accepted	Rejected
Bracing method matches layout drawing: <i>X-Bracing, V-Bracing or Bracing Cables, connected to Posts / Rafters at specified locations.</i> IM 11 Bracing installation		
Bracing Cable best practice: <i>Wire rope clamps installed with the saddle on the live end of the wire rope.</i> IM 11 Bracing installation		
Correct fasteners used on connections and torqued according to specification:		

Mounting/Joining Rails		
Criterion	Accepted	Rejected
Rail fixing method correct: <i>Rail Clips or Wedge Clips installed correctly, with an Isolation Pad fitted between Rafter and Rail (dissimilar metal isolation). Purlin Connector used and 14mm hole drilled on-site where Wedge Clips are specified.</i> IM 12 Mounting rails		
Rail spacing correct: <i>Per PV module installation guide and project-specific layout drawing.</i> IM 12 Mounting rails		
Thermal expansion gaps where applicable: <i>When tables exceed $\pm 35\text{m}$ in length.</i> IM 13 Joining Rails		
Correct fasteners used on connections and torqued according to specification:		

Purlin Cable Tray Installation		
Criterion	Accepted	Rejected
Purlin Cable Tray installed correctly: <i>Cable Tray Housing secured to Rail; Cover interlocked with Housing and secured.</i> IM 14 Purlin cable tray installation		
Correct fasteners used on connections and torqued according to specification:		

PV Module Installation		
Criterion	Accepted	Rejected
Table horizontal levelled: <i>Levelled with the slope of the ground.</i>		
Modules without damage:		
Modules laid in portrait orientation: <i>Each module supported by two Rail lengths.</i> IM 15 PV module installation		
Middle/End clamps overlap module: <i>>6mm</i>		
Correct End Clamp used for module frame height: <i>30mm / 35mm / 40mm, with matching fastener length per Clamps and Fasteners table.</i> IM 15 PV module installation		
Click Fix clamps correctly seated: <i>Pegs fully seated in Rail slot; not repeatedly inserted/removed.</i> IM 15 PV module installation		
Nut Stoppers & Square Nuts positioned correctly: <i>Positioned in Rail cavity to match clamping configuration.</i> IM 15 PV module installation		
Nut Holder connection correct: <i>Positioned over Rail lip in line with panel edge (steel rail).</i> IM 15 PV module installation		
Earthing / Earth Plates installed correctly: <i>Spikes are pierced through anodised layer; Square Nut aligned with Earth Plate's central hole.</i> IM 15 PV module installation		
Correct fasteners used on connections and torqued according to specification:		

End Caps		
Criterion	Accepted	Rejected
End Caps installed on all rail ends: <i>Nut Stopper/Square Nut positioned near rail end before cap fitted.</i> IM 16 End caps installation		
Purlin Cable Tray End Caps installed: <i>End Caps secured on all Purlin Cable Tray ends.</i> IM 16 End caps installation		
Correct fasteners used on connections and torqued according to specification:		

Inspection and Maintenance		
Criterion	Accepted	Rejected
Zinc paint touch-ups must be done where galvanising layers have been damaged.		
-The products are to be inspected annually in the form of a visual inspection of the whole installation. Axe Struct must be notified of any first appearances of rust and abnormal deformations. -Annual spot checks are to be done on fasteners to ensure that the minimum required torque moment specified in this Manual is met. -Cleaning of the product must be done with water with a pH between 6 and 10, and without chemicals.		

Site Closeout		
Criterion	Accepted	Rejected
Site-wide cleanup:		
All rubbish has been removed:		
Tools and remaining parts packed in stores:		

Torque Settings Table		
The specified settings below are assumed to have a dry application. Should a lubrication agent or anti-seizing be used, 80% of the below-listed values would apply. Fastening should be halted when aluminium sections start to visually deform.		
Size	Stainless Steel (N·m)	Galvanised Grade 8.8
M8	18 N.m	N/A
M10	38 N.m	N/A
M12	60 N.m	93 N.m
M16	150 N.m	230 N.m
M20	300 N.m	464 N.m
M24	N/A	798 N.m

Additional Comments	
Table ID	Comments

Inspected by
(Name and surname)

Signature

Date