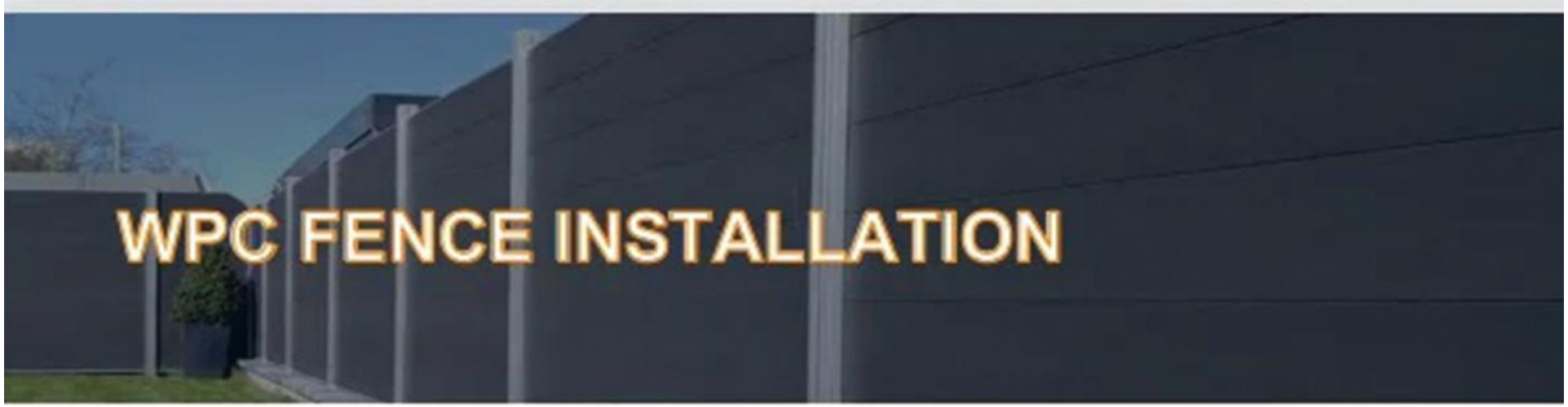
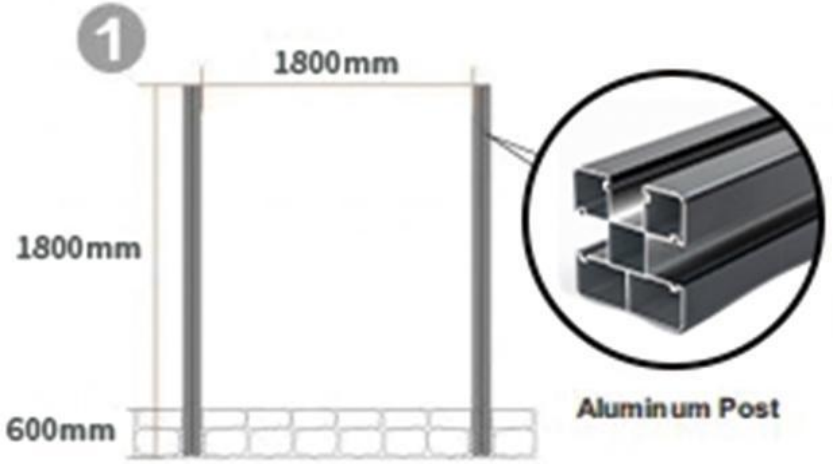
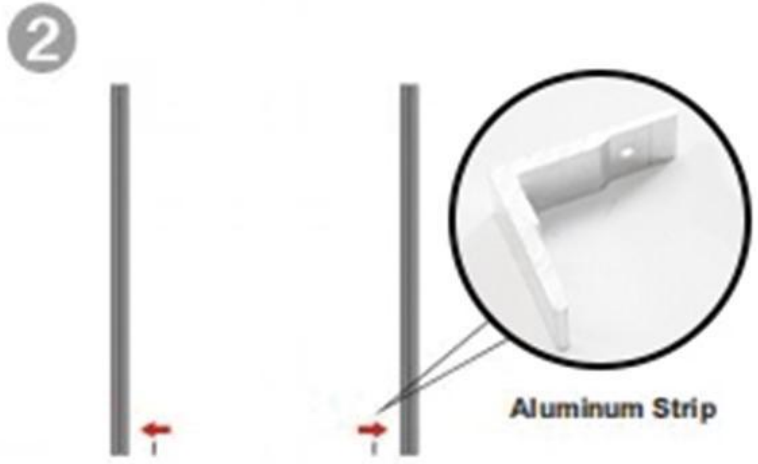
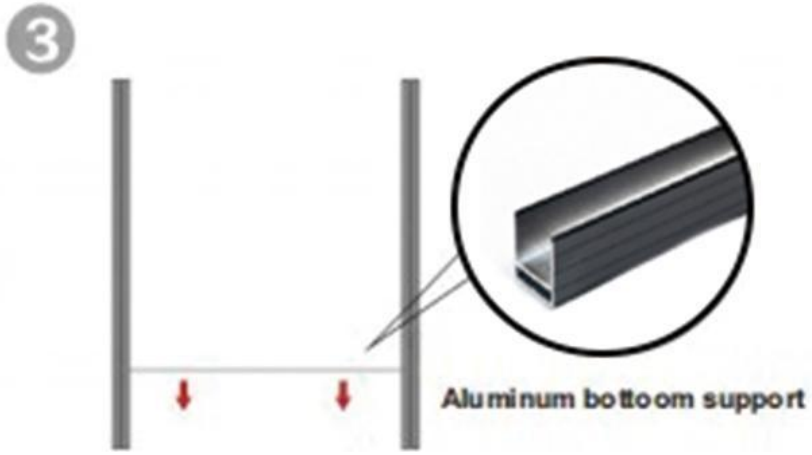
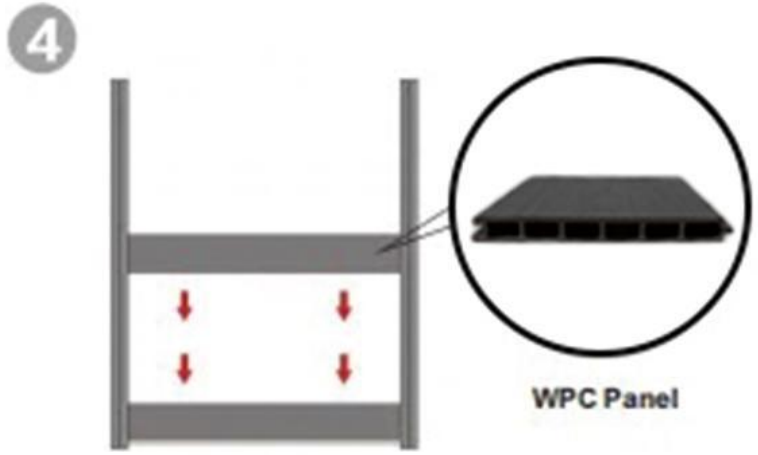

WPC FENCE INSTALLATION

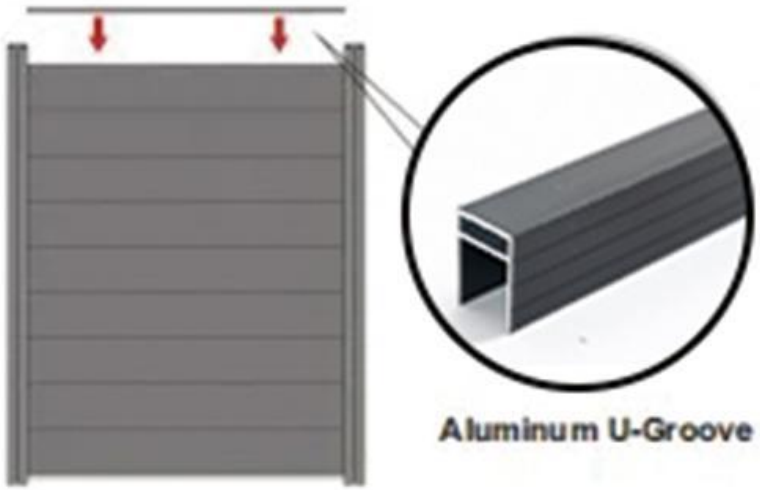

1
1800mm
1800mm
600mm
Aluminum Post


2
Aluminum Strip


3
Aluminum bottoom support

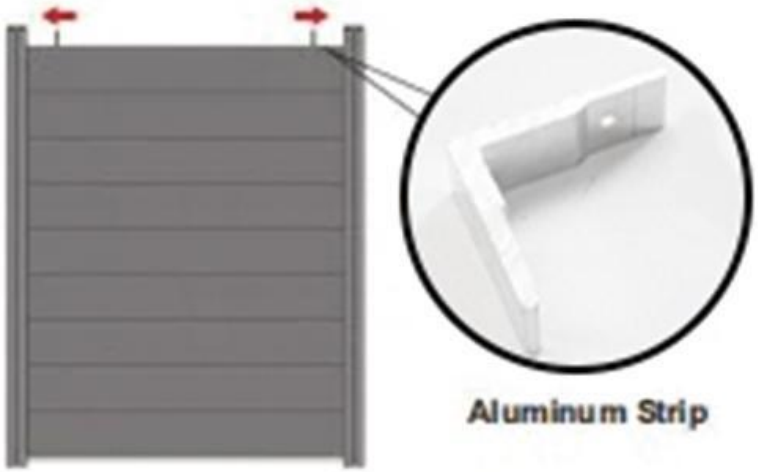

4
WPC Panel

5



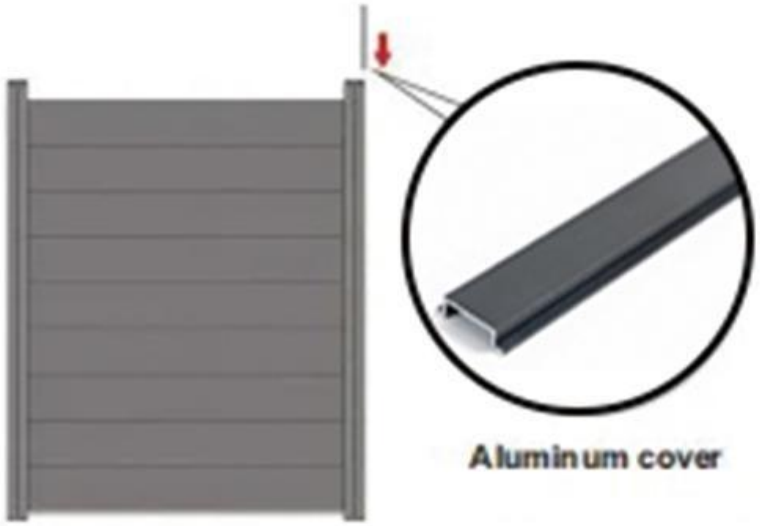
Aluminum U-Groove

6



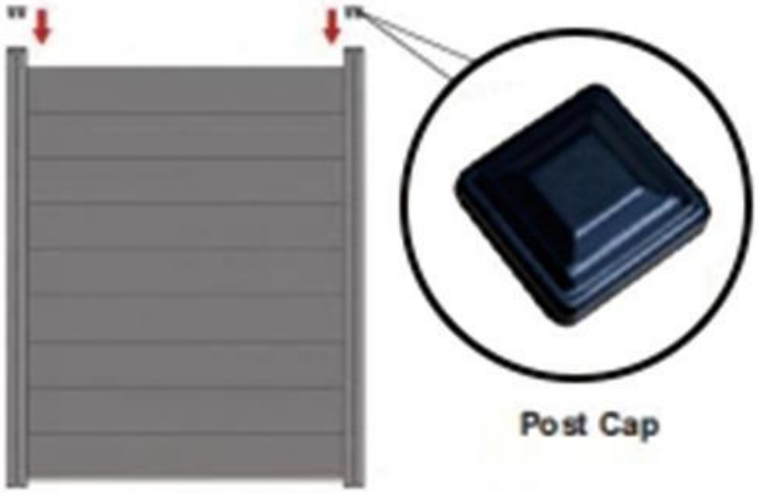
Aluminum Strip

7



Aluminum cover

8



Post Cap

Premium 6063-T5 Aluminum Alloy Column - Technical Data Sheet			
ASTM Cell Classification:		ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.	
Specifications:	Value	ASTM Test Method	Performance Note
Mechanical Properties			
Tensile Strength: Ultimate (UTS)	180 - 205 MPa	B557 / E8	Excellent strength for structural integrity
Tensile Strength: Yield (Proof)	145 - 170 MPa	B557 / E8	High yield strength ensures reliable load-bearing capacity
Elongation at Break	8 - 12 %	B557 / E8	Good ductility, providing toughness and resistance to impact
Hardness, Brinell	60 HB	E10	Optimal balance between formability and resistance to wear
Modulus of Elasticity	68.9 GPa	E111	Standard stiffness for aluminum alloys, providing flexibility and resilience
Physical & Thermal Properties			
Density	2.70 g/cm³		Lightweight material, offering a superior strength-to-weight ratio
Thermal Conductivity	201 - 210 W/m·K	E1461	Efficient heat dissipation, suitable for various environmental conditions
Coefficient of Thermal Expansion	23.4 µm/m·°C	E228	Low thermal expansion ensures dimensional stability across a wide temperature range
Melting Range	616 - 654 °C		Maintains integrity under high-temperature exposure
Durability & Corrosion Protection			
Coating System Durability (C4 Environment)	> 25 years	ISO 12944-5	Zinc-rich epoxy primer and polyurethane topcoat provide long-term protection in industrial and coastal atmospheres
Corrosion Resistance	Excellent	G85 / G44	Inherent resistance to atmospheric corrosion, significantly enhanced by the coating system
Manufacturing & Quality			
Weldability	Excellent		Can be easily welded using common methods, with post-weld heat treatment available for restored strength
Machinability	Good		Suitable for precision machining and fabrication to meet complex design requirements
Anodizing & Finishing Suitability	Excellent		The smooth surface is ideal for various aesthetic finishes, including anodizing and powder coating

CORNER POSTS: BENEFITS AND USAGE

Corner posts are essential for reinforcing the structural integrity of the fence. Their unique design ensures stability and alignment at corners, making them an indispensable part of any fencing system.