

TECHNICAL DATA SHEET

Wallshell RV Anchoring System



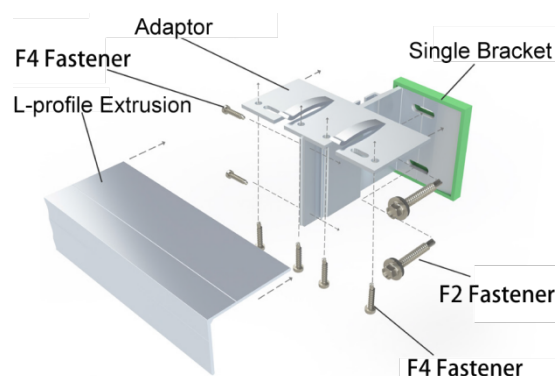
Characteristics

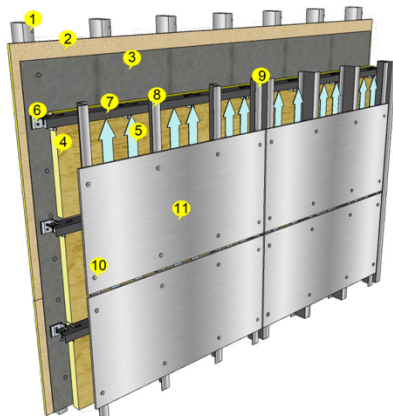
Application

Wallshell RV visible anchoring system consists of the color coated rivets, Hat-profile extrusion, Z-profile extrusion, and L-profile extrusion optional, in an engineered arrangement specifically for V-Shield™ Panels. The color matched rivets to anchor our V-Shield™ panels onto marine-grade corrosion resistant aluminum Z-profile extrusion and Hat-profile extrusion makes this system much simpler, more reliable and stable in its performance, and, the most important, easier for customer to cut on-site and install.

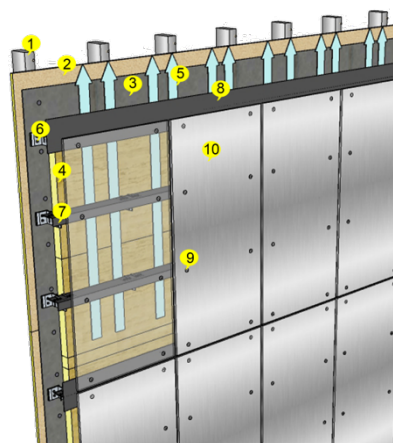
System Composition

There are two different system compositions correspond to two different installation methods. The first is Vertical RV Anchoring System. This system is composed with rivet, rivet sleeve, Z-profile extrusion, Hat-profile extrusion, L-profile extrusion, L-profile brackets, Fastener. The second is called Horizontal RV Anchoring System. This system without Z-profile extrusion, replace it with L-profile extrusion.





1. Steel Stud
2. Sheathing
3. Vapor Barrier
4. Insulation Layer
5. Ventilated Cavity
6. Bracket & Adaptor
7. L-profile Extrusion
8. Z-profile Extrusion
9. Hat-profile Extrusion
10. Rivet or Anchor
11. V-Shield™



1. Steel Stud
2. Sheathing
3. Vapor Barrier
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6. Bracket & Adaptor
7. L-profile Extrusion
8. T-profile Extrusion
9. Rivet or Anchor
10. V-Shield™

Panel Anchor

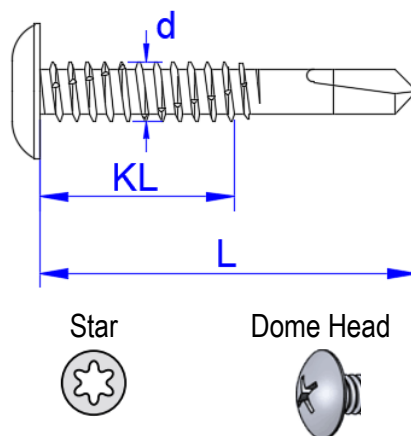
Properties

Face fixing of high performance cladding Wallshell V-Shield™ panel to aluminum or steel framework.

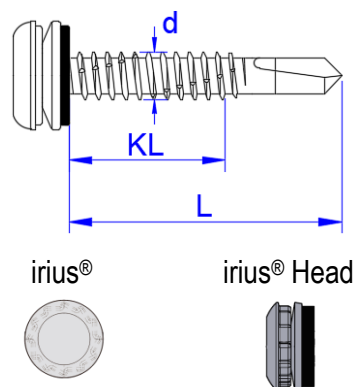
Technical Data

P1 Panel Anchor		
Length(L)	30	55
Clamping Length (KL)	15	40
Fastener ø(d)	5.5	
Drive Type	Star	
Head Style	Dome Head	
Material	Stainless Steel AISI 304	
ASD Value for Tensile Strength	10863N	
ASD Value for Shear Strength	7206N	

All size measures in mm



P2 Panel Anchor	
Length(L)	32
Clamping Length (KL)	15
Fastener ø(d)	5.5
Drive Type	irius®
Head Style	irius® Head
Material	Stainless Steel AISI 304
ASD Value for Tensile Strength	8452N
ASD Value for Shear Strength	7206N



Rivet

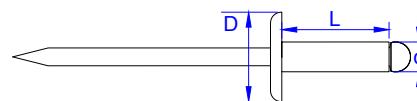
Properties

Face fixing of high performance cladding Wallshell V-Shield™ panel to aluminum or steel framework.

Technical Data

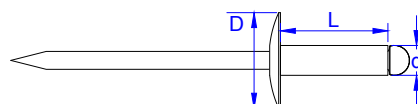
R1 Rivet			
Length(L)	14	18	22
Grip Range (KL)	6.0~9.5	9.0~13.5	13.0~18.0
Head $\phi(D)$	15		
Fastener $\phi(d)$	5		
Pilot hole ϕ	5.1		
Body Material	Stainless Steel AISI 316		
ASD Value for Tensile Strength	6500N		
ASD Value for Shear Strength	5300N		

All size measures in mm



R2 Rivet			
Length(L)	16	18	21
Grip Range (KL)	8.0~12.0	9.5~13.5	12.5~16.5
Head $\phi(D)$	16		
Fastener $\phi(d)$	5		
Pilot hole ϕ	5.1		
Body Material	Aluminum AlMg5		
ASD Value for Tensile Strength	3720N		
ASD Value for Shear Strength	2414N		

All size measures in mm



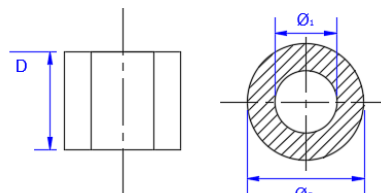
Rivet Sleeve

Properties

The rivet sleeve is used with rivet to form fixing point when fixing panels. The sleeve slides over rivet and fills the hole in the panel.

Technical Data

\varnothing_1	5.1mm		
\varnothing_2	7.9mm	8.4mm	9.4mm
D	6mm		
Material	Aluminum		



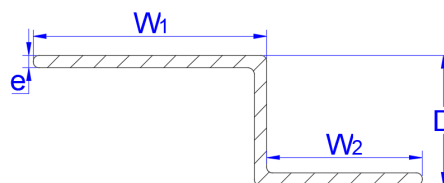
Z-Profile Extrusion

Properties

The Vertical RV Anchoring System need Z-profile extrusion as a metal frame for anchoring V-shield™ panel.

Technical Data

Thickness (e)	2.4mm	
Depth(D)	25mm	40mm
Width(W_1)	45mm	55mm
Width(W_2)	30mm	30mm
Material	Aluminum Alloy 6005	
ASD Value for Tensile Strength	188MPa	
ASD Value for Shear Strength	94MPa	



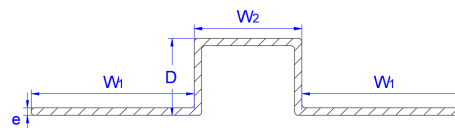
Hat-Profile Extrusion

Properties

The Vertical or Horizontal RV Anchoring System all can use Hat-profile extrusion as a metal frame for anchoring V-shield™ panel in panel joints.

Technical Data

Thickness (e)	2.4mm	
Depth(D)	25mm	40mm
Width(W ₁)	43mm	53mm
Width(W ₂)	35mm	35mm
Material	Aluminum Alloy 6005	
ASD Value for Tensile Strength	188MPa	
ASD Value for Shear Strength	94MPa	



T-Profile Extrusion

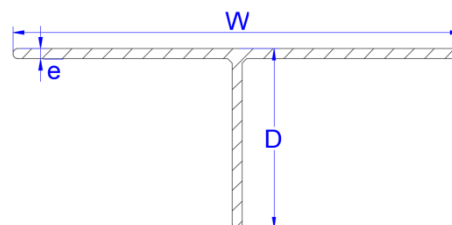
Properties

The Horizontal RV Anchoring System need T-profile extrusion as a metal frame for anchoring V-shield™ panel in panel joints.

Technical Data

Thickness (e)	2.2				
Depth(D)	40	60	60	60	60
Width(W)	100	80	100	120	140
Material	Aluminum Alloy 6005				
ASD Value for Tensile Strength	188MPa				
ASD Value for Shear Strength	94MPa				

All size measures in mm



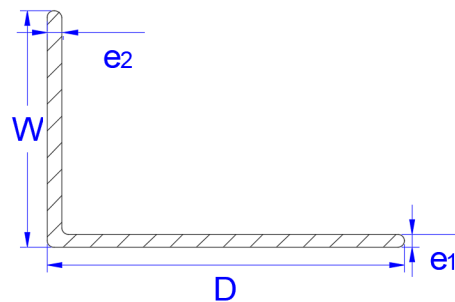
L-Profile Extrusion

Properties

The Vertical RV Anchoring Systems need L-profile extrusion as a metal frame for anchor Z-profile extrusion and Hat-profile extrusion. The Horizontal RV anchoring systems requires a L-profile extrusion for anchoring V-shield™ panel.

Technical Data

Thickness (e ₁)	2.2mm
Thickness (e ₂)	2.5mm
Depth(D)	60mm
Width(W)	40mm
Material	Aluminum Alloy 6005
ASD Value for Tensile Strength	188MPa
ASD Value for Shear Strength	94MPa



Fastener

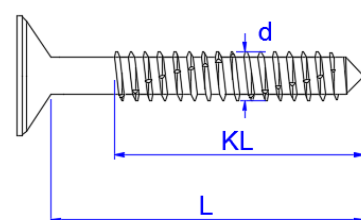
Properties

- F1 Fastener with sleeve for anchoring to concrete or solid block.
- F2 Self-drilling fastener for anchoring to steel or aluminum structure.
- F3 Self-drilling fastener for anchoring to wood stud framing.
- F4 Self-drilling fastener for anchoring Extrusion, Rail or Adaptor to Bracket.
- F5 Self-drilling fastener for anchoring Clip or Rail or Extrusion to Extrusion.

Technical Data

F1 Fastener			
Fastener ø (d)	8		
Length (L)	60	80	100
Clamping Length(KL)	50	70	90
Drive Types	Phillips		
Head Style	Flat heads		
Material	Galvanized Steel		
Thickness of Zinc-Plating	18µm		
Shear Force	100N		
Tensile Strength	1700N		
Thermal Conductivity	0.004 W/(m ² ·K)		

All size measures in mm



Phillips

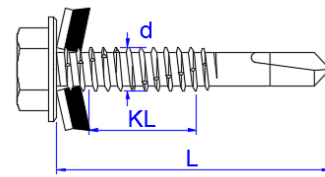


Flat heads



Attention: The F1 Fastener ø (d) include the diameter including anchor sleeve (High value Polyamide) .

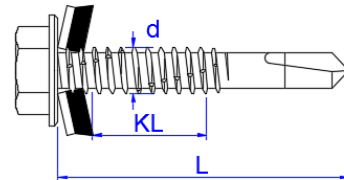
F2 Fastener	
Fastener \varnothing (d)	6.5 mm
Length (L)	50 mm
Clamping Length(KL)	34 mm
Drive Types	N/A
Head Style	Hex heads
ASD Value for Tensile Strength	3500N
ASD Value for Shear Strength	1750N
Material	Stainless Steel AISI 300



Hex heads



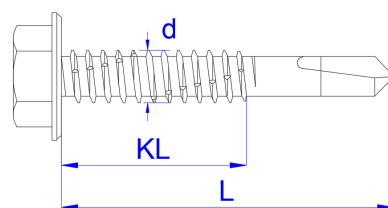
F3 Fastener	
Fastener \varnothing (d)	6.5 mm
Length (L)	52 mm
Drive Types	N/A
Head Style	Hex heads
ASD Value for Tensile Strength	3500N
ASD Value for Shear Strength	1750N
Material	Stainless Steel AISI 300



Hex heads



F4 Fastener	
Fastener \varnothing (d)	4.8 mm
Length (L)	19 mm
Clamping Length(KL)	11 mm
Drive Types	Pozidriv
Head Style	Pen heads
ASD Value for Tensile Strength	3500N
ASD Value for Shear Strength	1750N
Material	Stainless Steel AISI 304



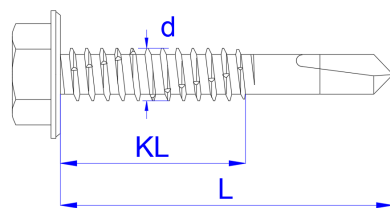
Pozidriv



Pen heads



F5 Fastener	
Fastener \varnothing (d)	5.5 mm
Length (L)	22 mm
Clamping Length(KL)	8 mm
Drive Types	Pozidriv
Head Style	Hex heads
ASD Value for Tensile Strength	3500N
ASD Value for Shear Strength	1750N
Material	Stainless Steel AISI 316



Pozidriv



Hex heads



L-Profile Bracket

Properties

In the RV Anchoring System, L-profile bracket and L-profile extrusion should be paired in the use as a metal frame for anchoring V-Shield™.

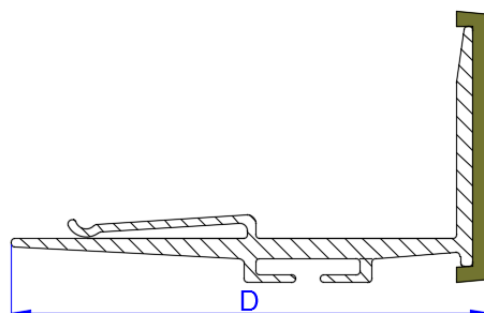
Single brackets allow the facade to "float" on the sub-construction by absorbing wind load and allowing for expansion and contraction.

Double brackets support both vertical weight loads and horizontal wind loads.

Technical Data

Depth	Range of adjustment
40	47 ~ 67
60	62 ~ 102
90	92 ~ 132
120	122 ~ 162
150	152 ~ 192
180	182 ~ 222
210	212 ~ 252
240	242 ~ 282
270	272 ~ 312
300	302 ~ 342

All measures in mm



ASD Value for Tensile Strength	3500N
ASD Value for Shear Strength	1750N
Material	Aluminum Alloy 6005

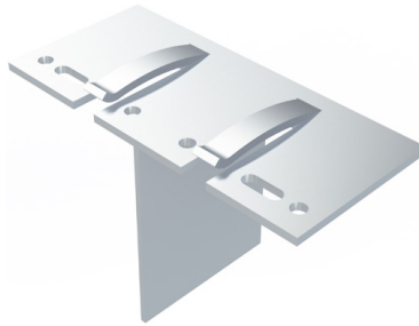
Adaptor

Properties

Adaptor is used to attach horizontal extrusions which allow for direct facade attachment along the length of the horizontal extrusion.

Material

Aluminum Alloy 6005



Installation

Environment

Excessive humidity, salts, or other chemical agents can corrode the finish and attack metal.

Fastening

Inadequate or incorrect fasteners can result in the pulling loose and causing damage.

Alignment

Improper bracket alignment can result in a shelving system that is ineffective and unsafe.

Delivery

Packaging
Box

Storage

Storage Conditions

Dry condition

Application Requirements

Substrate Conditions: Free from imperfections, hollows, or protrusions

Special Information

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