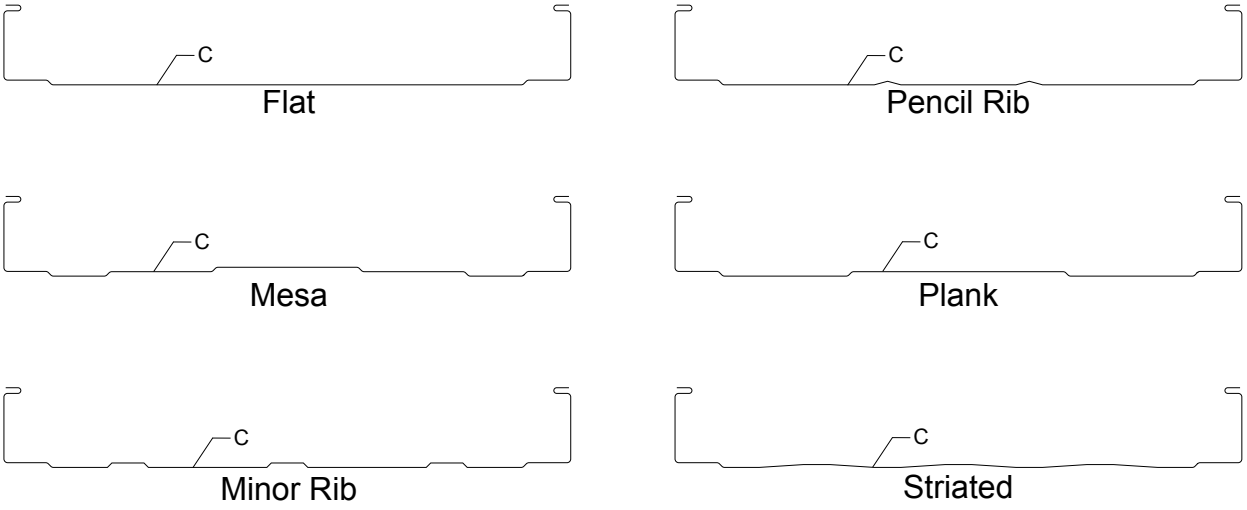
ALUMINUM T-ARMOR

CONDENSED TECHNICAL REFERENCE



*Profiles are shown for 16" wide panels. Other width panels are similar.

ARCHITECTURAL COMMERCIAL INDUSTRIAL PANEL

CONCEALED FASTENED

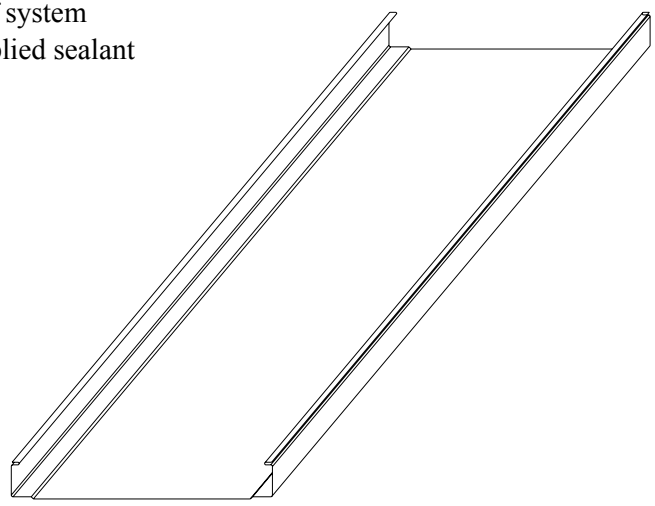
12", 16" OR 18" COVERAGE

MINIMUM SLOPE 1/2:12

OPEN FRAMING OR SOLID SUBSTRATE

PANEL OVERVIEW

- Finishes: PVDF (Kynar 500®) and Acrylic Coated Galvalume®
- Material: 3105 H24 Aluminum
- Thickness: 0.032" and 0.040"
- 12", 16" or 18" panel coverage, 2 3/8" rib height
- Panel Length: Minimum: 6', Maximum: 80'
- Architectural, structural vertical rib standing seam roof system
- Integral mechanically seamed side lap with factory-applied sealant
- Minimum roof slope: 1/2:12
- Panels can be factory-notched
- Accommodates 1/2" to 6" blanket insulation



TESTING AND APPROVALS

- UL 2218 Impact Resistance - Class 4
- UL 790 Fire Resistance Rating - Class A, per building code
- UL 263 Fire Resistance Rating - per assembly
- ASTM E 1680 Air Leakage -
- ASTM E 1646 Water Penetration - None
- *ASTM E 2140 Water Penetration, Static Head -
- ASTM E 1592 Structural Performance
- UL 580 Uplift Resistance - Class 90 Constructions: #268, #268A and #268B
- *ICC Evaluation Report

* pending

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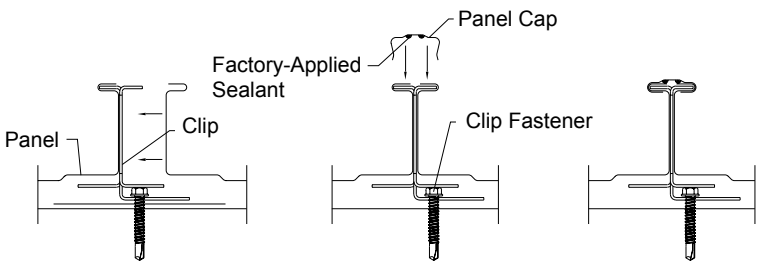
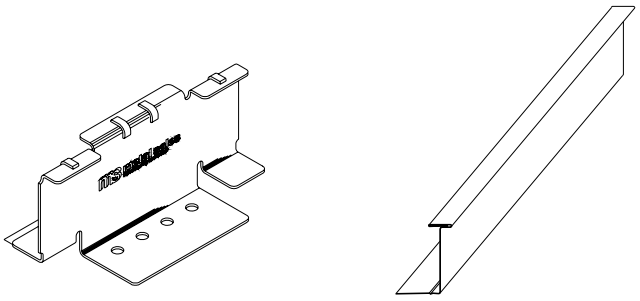
ATTACHMENT DETAILS



INSTALLING PANEL | INSTALLING CAP | SEAMED

CLIP OPTIONS



INDIVIDUAL CLIP | CONTINUOUS CLIP

FASTENING INFORMATION

▶ Clips

Clip spacing is based upon the design loads, the spanning capacity of the panels, the fasteners and the support members.

Individual clips are 0.060" thick, G90 is standard, 410 stainless is optional. Continuous clips are 24 or 22 ga.

Both individual and continuous clips can accomodate practically unlimited thermal movement in each direction.

▶ Fasteners

Overdriven fasteners will cause panel distortions.

Fasteners should extend 1/2" or more past the inside face of the support material.

Clip Fasteners:
- Attaching to Wood:
  - #12-11 x 1-1/2" Wood Screw
- Attaching to Steel:
  - <18 ga: 1/4"-14 Deck Screw
  - >=18 ga, <=12 ga: 1/4"-14 Driller, No Washer
  - >12 ga: 1/4"-24 Driller, No Washer

Exposed End Fasteners:
- At Eave Plate or Back-Up Channel:
- #12-14 BiMetal Driller (Stainless Steel)

Concealed End Fasteners:
- At Eave Plate or Back-Up Channel:
- #12-14 BiMetal Driller (Stainless Steel)

Trim Fasteners:
- #14-11x1" Stitch Screw (Stainless Steel)
- 1/8" x 3/16" Pop Rivet

SECTION PROPERTIES / ALLOWABLE UNIFORM LOADS psf (3 or More Equal Spans)

Thick in	Width in	Yield ksi	Weight psf	I in^4/ft	S_{Top} in^3/ft	S_{Bottom} in^3/ft	Inward Load 2'	2.5'	3'	3.5'	4'	5'	Outward Load 2'	2.5'	3'	3.5'	4'	5'
0.032	12	22	0.73	0.5110	0.3093	0.7391	115	91	64	47	36	23	93	84	76	67	60	42
0.040	12	22	0.91	0.6350	0.3857	0.9163	213	140	99	73	56	36	93	84	76	67	60	42
0.032	16	22	0.65	0.4200	0.2378	0.7261	104	67	47	35	27	17	93	84	76	67	60	42
0.040	16	22	0.82	0.5228	0.2960	0.9012	161	104	73	54	41	27	93	84	76	67	60	42
0.032	18	22	0.63	0.3867	0.2129	0.7222	93	60	42	31	24	15	82	74	67	59	51	35
0.040	18	22	0.79	0.4793	0.2655	0.8939	142	92	65	47	36	23	82	74	67	59	51	35

1. Theoretical section properties have been calculated per Aluminum Association's 2005 'Aluminum Design Manual'. I, S_{Top} and S_{Bottom} are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with ADM 2005 specification considering bending, shear, combined bending and shear, deflection and ASTM E 1592 uplift load testing on 16 ga purlins. Allowable loads consider the 3 or more equal spans condition. Panel weight is not considered.
3. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
4. Allowable loads do not include a 1/3 stress increase for wind.

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