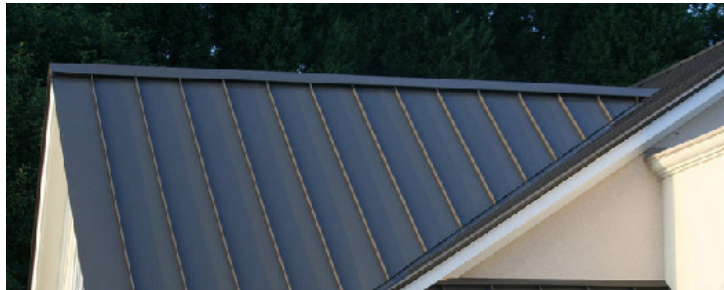


MECHANICAL LOCK



Snap Lock is a type of standing seam metal roof panel that has a male and female leg that snap together. Clips are used to attach the panel to the roof deck. They fasten underneath the panel and out of view to keep the clean look of a standing seam roof.

2" Mechanical- 14.1875" Only.

MATERIAL SPECIFICATIONS



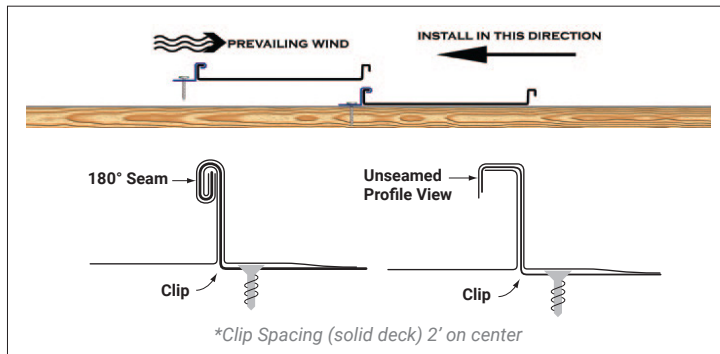
2" Mechanical Lock Panel SS200



1.5" Mechanical Lock Panel SS150

MECHANICAL LOCK			
Available Widths	1.5" Mechanical Lock: 12" & (16", 20" Special Order) 2" Mechanical Lock: 14.1875" & (18.1875" Special Order)	Gauges	24 & (22, 26 Special Order)
Substrate	AZ-50, Grade D, 50,000ksi	Paint System	Valspar Fluoropon®
Production Options	Either factory made to length with protective film or rolled to length on site* <i>**On site production is the preferred method and is subject to order minimums**</i>	Warranty	- AZ50 – 25 year Galvalume - Valspar™ PVDF - 35 year
Panel Options	Flat Panel, Striations, Bead Roll, or Pencil Ribs (flat panel requires a waiver)	Available Material Types	- Painted, Galvalume - Other finishes available upon request
Weight	1.25lbs/SqFt (22) 1.00lbs/SqFt (24) 0.75lbs/SqFt (26)	Testing for 2" Mechanical 14.1875" only	 - UL 580 Wind Uplift (Class 90) - UL 2218 Class 4 Hail Impact - UL 790 Class A Fire Rating - ASTM E1680 - ASTM E1646 - ASTM E1592

SCREW PATTERNS



APPLICATION DETAILS

1.5" Mechanical Lock Panel

- **Installation:** Can be installed on solid wood decking
- **Minimum Slope:** 2:12 (Hot melt required below 3:12)

2" Mechanical Lock Panel

- **Installation:** Can be installed over open frame steel purlins, steel decking, steel decking with polyiso board, or solid wood decking
- **Minimum Slope:** ½" :12 (Hot melt required below 3:12)

Please Note: It is the responsibility of the builder to ensure that purlins are adequately spaced to meet specic engineering requirements.



****Flatiron Steel is neither partially or soley responsible for improper installation or defects as a result of installation. Oil Canning is not a reason for rejection of panels****

LOAD TABLES - 2" Mechanical 14.1875" Only

Refer to Trim Pamphlet for Material Availability

Width: 14" Panels | Alloy: 50 KSI Galvalume | Thickness: 24 GA

		Allowable Uniform Live Load (PSF) Span Length (Feet)					
SPAN TYPE	LOAD TYPE	2.0 ft	2.5 ft	3.0 ft	3.5 ft	4.0 ft	4.5 ft
Simple & Double Span	LOAD	170.8	132.6	120.1	103.7	90.4	78.7
	DEFp	–	1070.5	622.3	391.1	262.8	184.5
Triple Span	LOAD	235.5	188	156.5	130.5	100.5	79
	DEFp	–	1714.4	966.1	626.3	420	295.5
		5.0 ft	5.5 ft	6.0 ft	6.5 ft	7.0 ft	7.5 ft
Simple & Double Span	LOAD	67.8	63.5	53.5	44.7	38.4	33.8
	DEFp	134.2	101	77.8	61.1	48.9	39.8
Triple Span	LOAD	64.4	51.8	44	40.4	34.7	29.7
	DEFp	214.9	161.8	124.5	97.8	78.3	63.7

Load = Positive Load | DEFp = Positive Deflect

- Allowable load per deflection based on L/180
- Formula's used for flexure & deflection are as follows;
 - **Simple & double span**, $MP = MP = 0.125wl^2$, & $\Delta = 0.013wl^4/EI$
 - **Triple span**, $MP = 0.08wl^2$, & $\Delta = 0.069wl^4/EI$
- Allowable uniform loads are determined per the following;
 - Local & overall buckling - AISI C3.1.2
 - Allowable shear stress (Fv) - AISI C3.2
 - Combined bending & shear - AISI C3.3
 - Combined bending & web crippling - AISI C3.5
- Allowable loads may be increased 33% for wind loads.
- Min. panel support bearing length = 3 inches.
- Allowance has been make for panel Dead Weight.
- For all loads, use LOWEST value between Load & Deflection, Load Table Designations;
 - (p) Positive bending
 - (n) Negative bending