



# Rustic C

DESIGN/INSTALLATION INFORMATION



# IMPORTANT NOTICE

**READ THIS MANUAL COMPLETELY PRIOR TO BEGINNING THE INSTALLATION OF THE RUSTIC C C PANEL SYSTEM. METAL DEPOTS DETAILS MUST BE FOLLOWED AS A MINIMUM TO INSURE APPROPRIATE WARRANTIES WILL BE ISSUED.**

**ALWAYS INSPECT EACH AND EVERY PANEL AND ALL ACCESSORIES BEFORE INSTALLATION. NEVER INSTALL ANY PRODUCT IF ITS QUALITY IS IN QUESTION. NOTIFY METAL DEPOTS IMMEDIATELY IF ANY PRODUCT IS BELIEVED TO BE OUT OF TOLERANCE, SPECIFICATION OR HAS BEEN DAMAGED DURING SHIPMENT.**

**IF THERE IS A CONFLICT BETWEEN PROJECT ERECTION DRAWINGS PROVIDED OR APPROVED BY THE MANUFACTURER AND DETAILS IN THIS MANUAL, PROJECT ERECTION DRAWINGS WILL TAKE PRECEDENCE.**

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The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the North American Specification for the Design of Cold-Formed Steel Structural Members published by the American Iron and Steel Institute to facilitate design. This Specification contains the design criteria for cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

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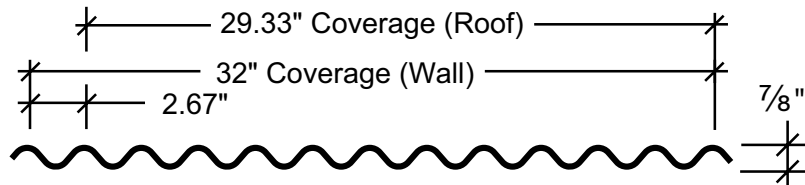
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## PRODUCT INFORMATION

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## GENERAL INFORMATION



Coverage Width - 32"

Minimum Slope - 3:12

Panel Attachment - Exposed Fastening System

Gauges - 22 (standard)

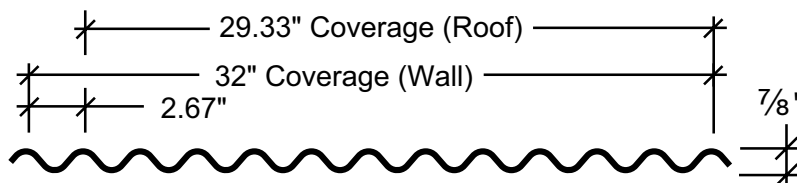
Rib Spacing - 2.67"

Rib Height - 7/8"

## ARCHITECT/ENGINEER INFORMATION

1. Minimum recommended slope is 3:12. For slopes less than 3:12, call Metal Depots.
2. Use a properly aligned and uniform substructure to avoid panel distortion. Typical substructure - 5/8" plywood; alternate substructure metal or wood stringers. Spacing of stringers to be determined by load tables. For illustration purposes, details are shown over plywood.
3. Rustic C panels are water shedding panels and therefore must be installed on a minimum 3:12 roof slope. The panels must be installed over a completely waterproofed substructure. If the waterproof membrane is mechanically attached with metal fasteners of any type, fasteners should be covered to protect the back side of the roof panels. Any mechanical attachment device that does not lay flat on the deck will telegraph through the panels.
4. Panels are subject to surface distortion due to improperly applied fasteners. Overdriven fasteners will cause stress and induce oil canning across the panel at or near the point of attachment. Oil canning is not a cause for rejection.
6. For continuous panels over 25', please inquire. Panels may be endlapped.
7. All panel ends must be sealed at eave and valley conditions.

## RUSTIC C PANEL



SECTION PROPERTIES								
			NEGATIVE BENDING			POSITIVE BENDING		
PANEL	F <sub>y</sub>	WEIGHT	I <sub>xe</sub>	S <sub>xe</sub>	Maxo	I <sub>xe</sub>	S <sub>xe</sub>	Maxo
GAUGE	(KSI)	(PSF)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)
22	33	1.62	0.0375	0.0832	1.3980	0.0375	0.0832	1.3980

\* Panels are made from 33 ksi yield material. Flexural effective yield strengths vary by direction of bending. Shear and web crippling capacities have been determined using an effective yield strength of 33 ksi.

### NOTES:

- All calculations for the properties of PBC Roof panels are calculated in accordance with the 2012 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
- I<sub>xe</sub> is for deflection determination.
- S<sub>xe</sub> is for bending.
- Maxo is allowable bending moment.
- All values are for one foot of panel width.

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## RUSTIC C ROOF PANEL ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

22 Gauge								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	103.53	58.24	37.27	25.88	19.02	14.56	11.50
	LIVE LOAD/DEFLECTION	103.53	51.24	26.23	15.18	9.56	6.40	4.50
2-span	NEGATIVE WIND LOAD	101.72	57.66	37.03	25.77	18.95	14.52	11.48
	LIVE LOAD/DEFLECTION	101.72	57.66	37.03	25.77	18.95	14.52	10.84
3-span	NEGATIVE WIND LOAD	126.19	71.76	46.16	32.15	23.66	18.13	14.34
	LIVE LOAD/DEFLECTION	126.19	71.76	46.16	28.65	18.04	12.09	8.49
4-span	NEGATIVE WIND LOAD	118.09	67.08	43.13	30.02	22.09	16.93	13.39
	LIVE LOAD/DEFLECTION	118.09	67.08	43.13	30.02	19.15	12.83	9.01

**Notes:**

1. Strength calculations based on the 2012 AISI Standard "North American Specification for the Design of Cold-formed Steel Structural Members."
2. Allowable loads are applicable for uniform loading and spans without overhangs.
3. LIVE LOAD/DEFLECTION load capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/180 under strength-level loads.
4. NEGATIVE WIND LOAD capacities are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
5. Panel pullover and Screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
6. Effective yield strength has been determined in accordance with section A2.3.2 of the 2012 NAS specification.
7. The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
8. This material is subject to change without notice. Please contact MBCI for most current data.

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## RUSTIC C WALL PANEL ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

22 Gauge								
SPAN TYPE	LOAD TYPE	SUPPORT SPACING						
		3 Ft.	4 Ft.	5 Ft.	6 Ft.	7 Ft.	8 Ft.	9 Ft.
1-span	<b>NEGATIVE WIND LOAD</b>	103.53	58.24	37.27	25.88	19.02	14.56	11.50
	<b>LIVE LOAD/DEFLECTION</b>	103.53	58.24	37.27	25.88	19.02	14.56	11.50
2-span	<b>NEGATIVE WIND LOAD</b>	101.72	57.66	37.03	25.77	18.95	14.52	11.48
	<b>LIVE LOAD/DEFLECTION</b>	101.72	57.66	37.03	25.77	18.95	14.52	11.48
3-span	<b>NEGATIVE WIND LOAD</b>	126.19	71.76	46.16	32.15	23.66	18.13	14.34
	<b>LIVE LOAD/DEFLECTION</b>	126.19	71.76	46.16	32.15	23.66	18.13	14.34
4-span	<b>NEGATIVE WIND LOAD</b>	118.09	67.08	43.13	30.02	22.09	16.93	13.39
	<b>LIVE LOAD/DEFLECTION</b>	118.09	67.08	43.13	30.02	22.09	16.93	13.39

**Notes:**

1. Strength calculations based on the 2012 AISI Standard "North American Specification for the Design of Cold-formed Steel Structural Members."
2. Allowable loads are applicable for uniform loading and spans without overhangs.
3. LIVE LOAD/DEFLECTION load capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/60 under strength-level loads.
4. NEGATIVE WIND LOAD capacities are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
5. Panel pullover and Screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
6. Effective yield strength has been determined in accordance with section A2.3.2 of the 2012 NAS specification.
7. The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
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## PANEL FASTENER LOCATIONS

### PANEL ENDS



PBC PANEL - (WALL APPLICATION)



PBC PANEL - (ROOF APPLICATION)

### PANEL INTERIOR



PBC PANEL - (WALL APPLICATION)



PBC PANEL - (ROOF APPLICATION)



**NOTE:**

1. The above are typical fastener spacings. However they may not be appropriate for all applications. Consult a professional engineer for use on any specific application.



# Rustic C NOTES

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