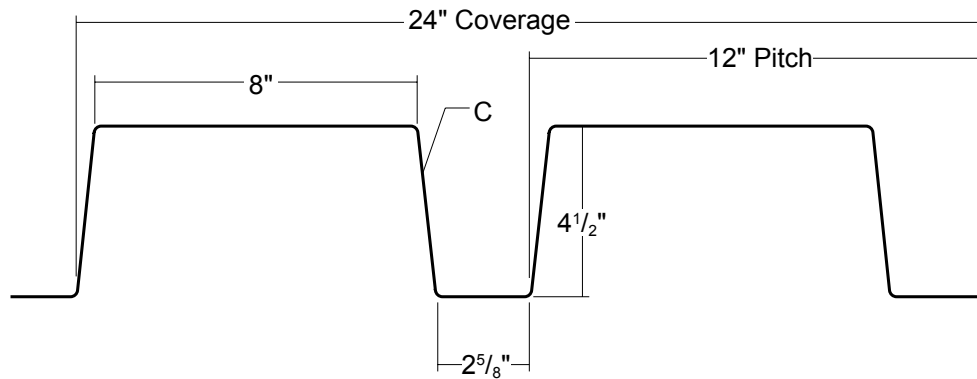


# TDR-12 WALL

CONDENSED  
TECHNICAL  
REFERENCE



ARCHITECTURAL  
COMMERCIAL  
INDUSTRIAL  
PANEL

EXPOSED  
FASTENED

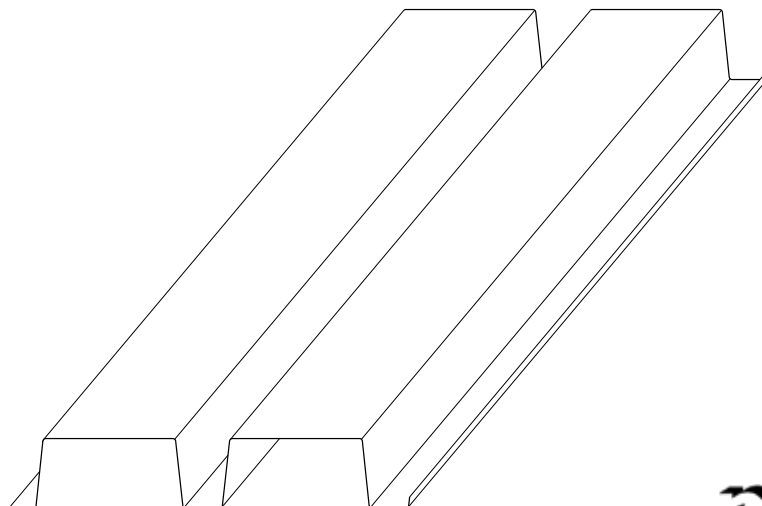
24"  
COVERAGE

MINIMUM  
SLOPE  
1:12

OPEN FRAMING OR  
SOLID SUBSTRATE

## PANEL OVERVIEW

- ▶ Finishes: Standard: PVDF (Kynar 500®)  
Optional: Multi-pass Kynar®, Marblique, Plastisol, Polyester and MS Colorfast45® (SMP)
- ▶ Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume®  
AZ50 per ASTM A 792 for painted Galvalume®  
G90 per ASTM A 653 for Galvanized
- ▶ Gauges: 24 ga, 22 ga, 20 ga and 18 ga
- ▶ 24" panel coverage, 4 1/2" rib height
- ▶ Trapezoidal ribs on 12" centers
- ▶ Panel Length: 5' minimum, 30' maximum
- ▶ Exposed Fastened Panel
- ▶ Minimum Roof Slope 1:12
- ▶ Optional material availability: Stainless Steel, Copper and Aluminum

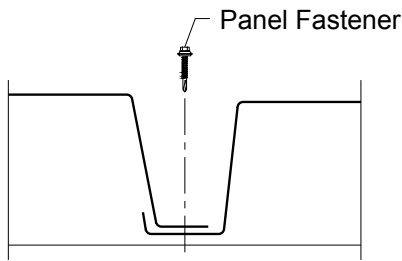


**MS metal sales**  
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# TDR-12 WALL

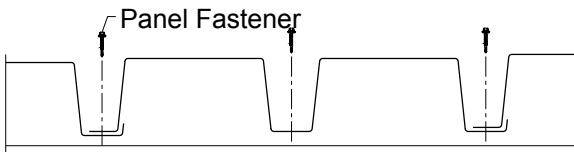
## CONDENSED TECHNICAL REFERENCE

### ATTACHMENT DETAIL



### FASTENING PATTERN

#### Ends and Field of Panel



### FASTENER INFORMATION

Overdriven fasteners will cause panel distortion.

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

Thick panels (ex. 18 ga) or supports (ex. 1/2" steel) may require predrilling of holes for screws.

Panel Fastener:

Attaching to Wood:

#10-14 XL Wood Screw

Attaching to Steel:

#12-14 XL Self Drilling Screw

Sidelap Fastener:

1/4"-14 x 7/8" XL Stitch Screw

Trim Fastener:

1/8" x 3/16" Pop Rivet

1/4"-14 x 7/8" XL Stitch Screw

### SECTION PROPERTIES

### ALLOWABLE UNIFORM LOADS psf (3 or More Equal Spans)

Ga.	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load				Outward Load							
				Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	5'	6'	7'	8'	10'	12'	5'	6'	7'	8'	10'	12'
				24	24"	50	1.59	0.6895	0.2354	0.9205	0.2684	132	104	84	68	49	36	127	99
22	36"	50	2.08	1.0450	0.3860	1.3850	0.4245	264	201	158	127	87	62	253	191	149	119	80	58
20	36"	33	2.55	1.5180	0.6192	2.0750	0.6963	359	262	198	155	102	72	330	238	180	140	92	64
18	36"	33	3.39	2.1515	0.9130	2.9835	1.0440	574	412	309	240	156	109	514	367	274	212	137	96

- Theoretical section properties have been calculated per AISI 2007 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
- Allowable loads are calculated in accordance with AISI 2007 specifications considering bending, shear, combined bending and shear and deflection. Allowable loads consider the 3 or more equal span condition. Allowable loads do not address web crippling, fasteners, support material or load testing. Panel weight is not considered.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Allowable loads do not include a 1/3 stress increase for wind.

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