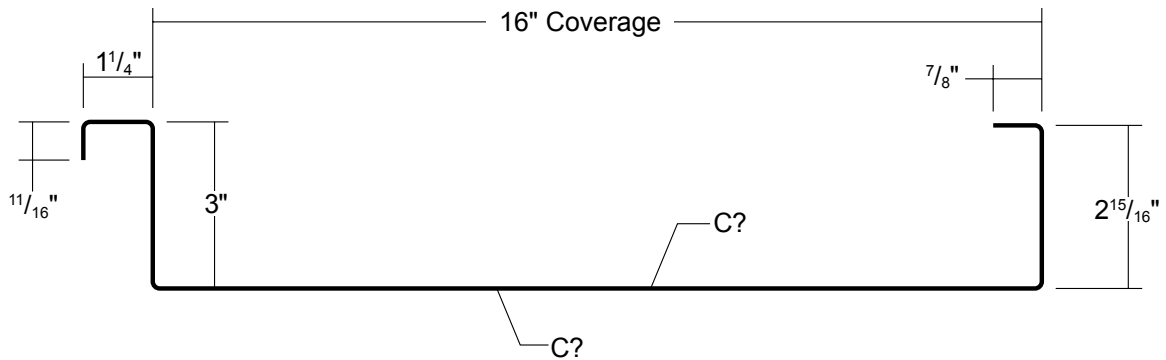


TL-21 PANEL

Condensed
Technical
Reference



NOTE: Either side of panel can be painted, please specify

ARCHITECTURAL
COMMERCIAL
INDUSTRIAL
PANEL

EXPOSED
FASTENED

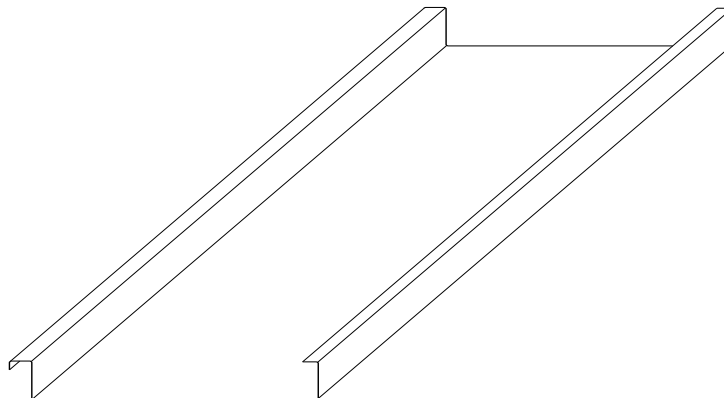
16"
COVERAGE

CUSTOM
CAPABILITIES

OPEN FRAMING OR
SOLID SUBSTRATE

PANEL OVERVIEW

- ▶ Finishes: Standard: PVDF
Optional: Multi-pass Kynar®, Marblique, Plastisol, Polyester and MS Colorfast45®
- ▶ 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
- ▶ 16" panel coverage, 3" rib height
- ▶ Panel Length: 5' minimum, 32' maximum
- ▶ Exposed Fastened Panel
- ▶ Use on single skin or field-assembled wall system applications
- ▶ Optional material availability: Stainless Steel, Copper and Aluminum
- ▶ Custom capabilities include:
 - Perforated panels for wind screens and liner panels
 - Tapering

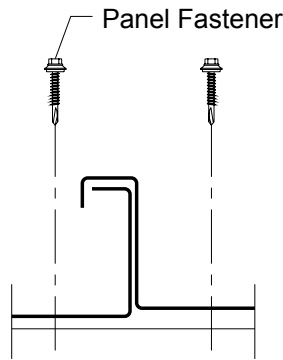


MS metal sales™
manufacturing corporation

TL-21 PANEL

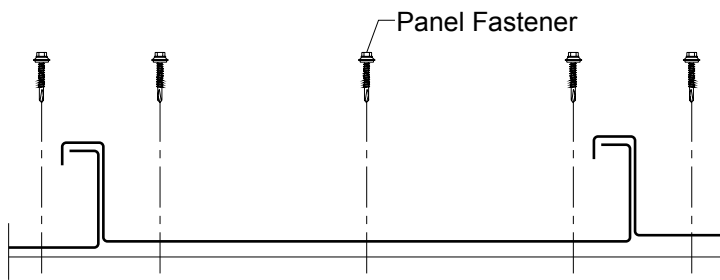
**Condensed
Technical
Reference**

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

Trim Fastener:

1/8" x 3/16" Pop Rivet

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

SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various fastener spacings

Ga	Width in	Yield ksi	Weight psf	Top in Compression		Bottom in Compression		Inward Load						Outward Load					
				Ixx in ⁴ /ft	Sxx in ³ /ft	Ixx in ⁴ /ft	Sxx in ³ /ft	4'	5'	6'	7'	8'	9'	4'	5'	6'	7'	8'	9'
24	16	50	1.38	0.3158	0.1244	0.1883	0.1100	130	89	64	49	38	30	141	97	71	54	42	34
22	16	50	1.82	0.4838	0.1972	0.2708	0.1667	219	145	103	77	59	47	250	168	120	89	69	55
20	16	33	2.22	0.7050	0.3005	0.3720	0.2447	223	145	102	76	58	46	266	175	124	92	71	56
18	16	33	2.93	0.9488	0.4070	0.5438	0.3431	312	204	143	106	81	65	363	238	168	125	96	76

- Theoretical section properties have been calculated per AISI 2012 '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 2012 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.

ms metal sales
manufacturing corporation

metalsales.us.com

Anchorage, AK 866.640.7663
Bay City, MI 888.777.7640
Deer Lake, PA 800.544.2577
Denver, CO 800.289.7663

Detroit Lakes, MN 888.594.1394
Fontana, CA 800.782.7953
Fort Smith, AR 877.452.3915
Independence, MO 800.747.0012

Jacksonville, FL 800.394.4419
Jefferson, OH 800.321.5833
Mocksville, NC 800.228.6119
Nashville, TN 800.251.8508
Rock Island, IL 800.747.1206
Rogers, MN 800.328.9316

Seattle, WA 800.431.3470
Sellersburg, IN 800.999.7777
Sioux Falls, SD 888.902.8320
Spokane, WA 800.572.6565
Temple, TX 800.543.4415
Woodland, CA 800.759.6019

©MSTL-2/13-2016