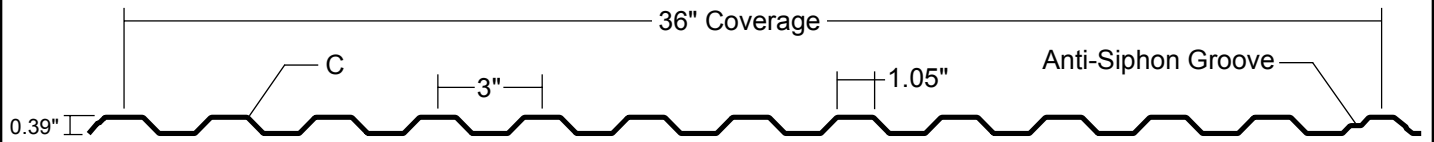


DL-3 PANEL

Condensed
Technical
Reference



ARCHITECTURAL
COMMERCIAL
PANEL

EXPOSED
FASTENED

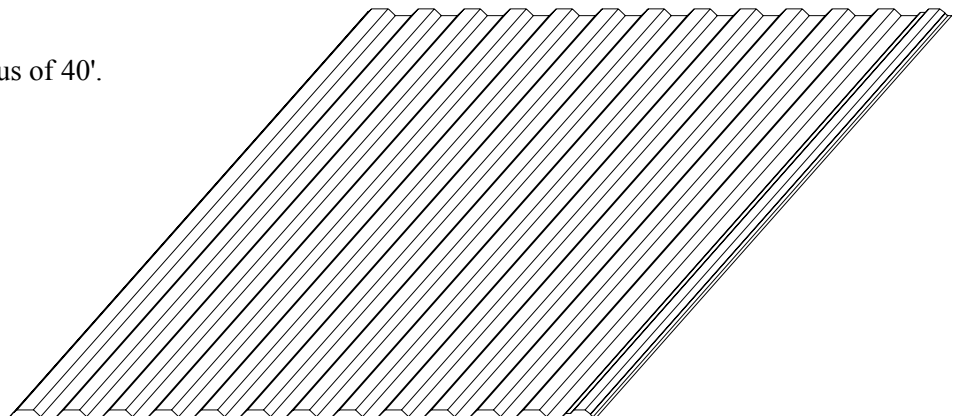
36"
COVERAGE

MINIMUM
SLOPE
3:12

OPEN FRAMING OR
SOLID SUBSTRATE

PANEL OVERVIEW

- ▶ Finishes: MS Colorfast45[®] and Bare Galvanized
- ▶ Corrosion Protection: G60 per ASTM A 653
- ▶ Gauge: 29 ga
- ▶ 36" panel coverage, 0.39" rib height
- ▶ Panel Length: Minimum: 5'; Maximum: 45' recommended
- ▶ Panel Run Length: Maximum: 60' recommended
- ▶ Exposed fastened, low profile roof and wall system
- ▶ Trapezoidal ribs on 3" centers
- ▶ Minimum roof slope: 3:12
- ▶ Minimum 'walked-down' radius of 40'.



TESTING AND APPROVALS

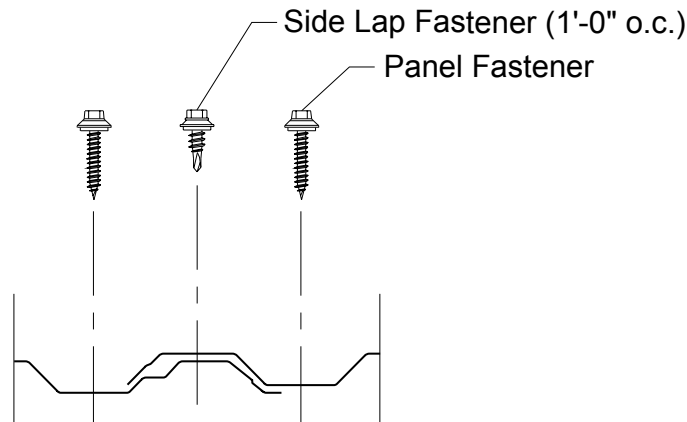
- ▶ UL 2218 Impact Resistance - Class 4
- ▶ UL 790 Fire Resistance Rating - Class A, per building code
- ▶ UL 263 Fire Resistance Rating - per assembly
- ▶ ASTM E 1592 Structural Performance

MS Metal Sales[™]

DL-3 PANEL

**Condensed
Technical
Reference**

ATTACHMENT DETAIL



FASTENER INFORMATION

Overdriven fasteners will cause panel distortions.

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

Applications with large internal suction pressure, such as partially enclosed structures and those with forced air ventilation, should add sidelap and endlap sealant to improve weather-tight performance.

Panel Fasteners:

Attaching to Wood:

- #10-14 Wood Screw
- #10-14 XL Wood Screw

Attaching to Steel:

- #12-14 Self Drilling Screw
- #12-14 XL Self Drilling Screw

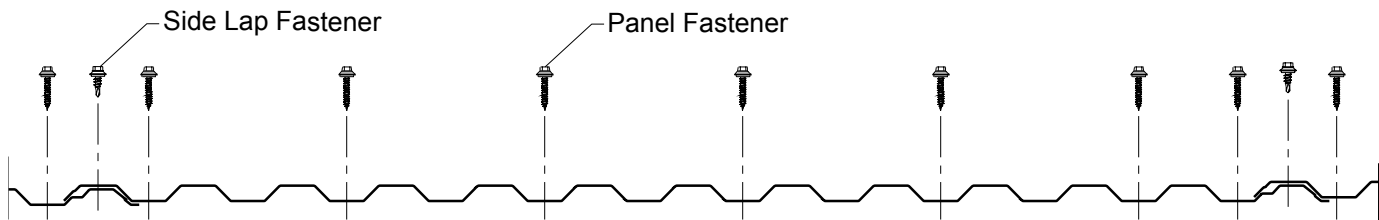
Side Lap Fastener: (Roof Only)

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

Trim Fastener:

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

FASTENING PATTERN



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 | | 1.5' | | 2' | | 2.5' | | 3' | | 3.5' | | 4' | |
| | | | | 0.0050 | 0.0214 | 0.0050 | 0.0208 | 210 | 120 | 64 | 37 | 23 | 16 | 216 | 123 | 64 | 37 | 23 | 16 | | | | |
| 29 | 36 | 50 | 0.71 | 0.0050 | 0.0214 | 0.0050 | 0.0208 | 210 | 120 | 64 | 37 | 23 | 16 | 216 | 123 | 64 | 37 | 23 | 16 | | | | |

- Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
- Allowable load is calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers the 3 or more equal spans condition. Allowable load does 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.
- The allowable diaphragm strength for a 29 ga panel attached to 16 ga steel supports with the above fastener and fastener pattern has been calculated at 240 plf with supports at 2' oc and 90 plf with supports 4' oc using the "Diaphragm Design Manual", 3rd Edition, Steel Deck Institute.

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