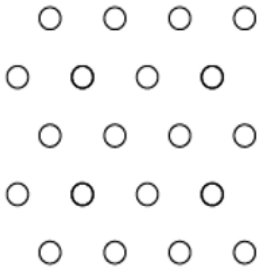
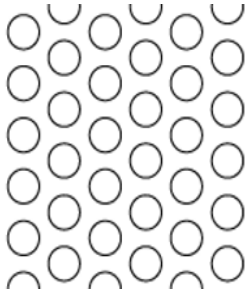
EcoScreen: MR3-36 Wall Panel Allowable Wind Loads (psf)

0.040" Aluminum - 10% Perforated						
Span Type	Span					
	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	8'-0"
Single	250 *	237 b	133 b	85 b	59 b	33 b
Double	206 f	137 f	103 f	82 f	59 b	33 b
Triple	234 f	156 f	117 f	93 f	74 b	41 b

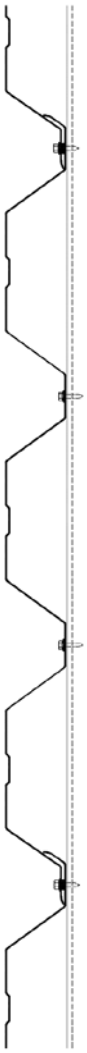
0.040" Aluminum - 40% Perforated						
Span Type	Span					
	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	8'-0"
Single	178 b	79 b	44 b	28 b	19 b	11 b
Double	133 f	79 b	44 b	28 b	19 b	11 b
Triple	151 f	98 b	55 b	35 b	24 b	13 b



10% Perforated
1/8" diam. spaced 3/8" o.c.



40% Perforated
3/8" diam. spaced 9/16" o.c.



NOTES:

1. Allowable loads are based on uniform span lengths.
2. Panel material is ASTM B209 3003-H14 aluminum alloy.
3. Failure modes represented are:
   - f = fastener pullout/pullover
   - b = bending
   - d = deflection
   - * = allowable load limited to 250 psf (contact Metl-Span if higher loads are required)
4. Panel properties are calculated per the Aluminum Association *Specification for Aluminum Structures - 2015 Edition* and the provisions for Allowable Strength Design (ASD). For ≥20% perforated, equivalent properties of the perforated material are used in place of the properties of the solid material.
5. Fastening limitations are based on nominal 1/4" fasteners with 15mm-diameter combination washers; minimum six (6) fasteners per panel width (2 per low cell); and minimum 16 Gauge (50 ksi) steel structural girts. Allowable pullover reactions are 258 lb for <20% perforated and 167 lb for 40% perforated, based on fabricator test data with a safety factor of 2.5; allowable pullout reactions are based on fastener manufacturer test data with a safety factor of 2.5.
6. Deflection is based on an effective moment of inertia per *Specification for Aluminum Structures* applied to the weaker orientation; a deflection ratio of L/120; and the 10-year mean return interval wind speed per IBC 2018 Table 1604.3.
7. Panel coverage = 36" and weight = 0.44-0.67 psf.
8. Contact Metl-Span for additional perforation patterns or conditions not conforming to these notes.