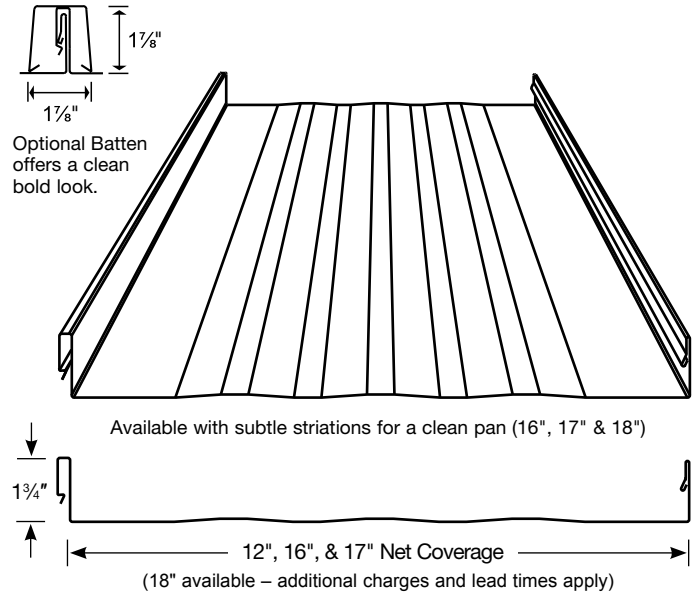


Design Span hp is a performance-rated structural standing seam, concealed fastener metal roof system with net coverage of 12", 16", 17" & 18".

Design Span hp is excellent as a roof over metal or wood decking, and as a fascia or mansard over plywood or supports.



Section Properties									
Width	Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft ²)	I+ (in ⁴ /ft)	S+ (in ³ /ft)	I- (in ³ /ft)	S- (in ³ /ft)
12"	24	0.0232	50	65	1.45	0.1185	0.0820	0.0762	0.0586
	22	0.0294	50	65	1.83	0.1522	0.1080	0.0997	0.0771
16"	24	0.0232	50	65	1.34	0.0943	0.0624	0.0593	0.0440
	22	0.0294	50	65	1.68	0.1213	0.0825	0.0773	0.0580
17"	24	0.0232	50	65	1.31	0.0901	0.0589	0.0562	0.0414
	22	0.0294	50	65	1.65	0.1158	0.0779	0.0734	0.0546
18"	24	0.0232	50	65	1.30	0.0858	0.0557	0.0533	0.0391
	22	0.0294	50	65	1.63	0.1104	0.0737	0.0696	0.0515

NOTE: The hybrid positive moment of inertia, I, presented for determining deflection is: $(2I_{\text{Effective}} + I_{\text{Gross}})/3$

standard features

- Factory applied sealant is a standard offer.
- Custom manufactured sheet lengths from 6'-0" to 45'-0".
- Subtle striations between ribs on 16" and wider panels.
- Offered in 12", 16" & 17" widths.
- Available in 24ga and 22ga in standard finishes - Refer to AEP Span Color Charts for full range of color options, prints, textures, finishes and paint systems.
- Recommended minimum slope of 2:12. Inquire for slopes below 2:12.
- Tested in accordance with UL580-Class 90 & ASTM E1592.
- Has been tested for air infiltration per ASTM E1680, and water infiltration per ASTM E1646.
- Snap-together panel means no field seaming is required.
- Panel evaluated by accredited third party. All structural performance data is contained within an IBC/IRC 2015 code compliance report.



optional features

- Short cut sheets from 6'-0" to 1'-0". Additional fees and lead times may apply.
- Longer lengths available from 70'-0" (Tacoma, WA facility) to 100'-0" (Fontana, CA facility). Additional fees and lead times may apply.
- Additional Batten option offers a clean bold look with the structural capacity and weather resistance of regular Design Span hp.
- Factory notching available for turn under at the eave.
- 18" width available. Additional fees and lead times may apply.

12" Design Span hp									
Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)						
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	Single Span	W/Ω	409	262	182	134	102	81	65
		L/180	-	-	-	-	-	-	-
	Double Span	W/Ω	285	184	128	94	72	57	46
		L/180	-	-	-	-	-	-	-
	Triple Span	W/Ω	353	228	160	118	90	71	58
		L/180	-	-	-	-	-	-	-
22	Single Span	W/Ω	539	345	240	176	135	106	86
		L/180	-	-	-	-	-	-	-
	Double Span	W/Ω	377	243	169	124	96	76	61
		L/180	-	-	-	-	-	-	-
	Triple Span	W/Ω	468	302	211	155	119	94	76
		L/180	-	-	-	-	-	-	-

Gauge	Allowable Outward Loads (lbs/ft ²) per Span (ft.-in.)								
	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	82	76	71	67	63	59	56	52	48
22	82	76	71	67	63	59	56	52	48

16" Design Span hp									
Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)						
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	Single Span	W/Ω	309	199	138	102	78	62	50
		L/180	-	-	-	-	-	-	-
	Double Span	W/Ω	214	138	96	71	54	43	34
		L/180	-	-	-	-	-	-	-
	Triple Span	W/Ω	265	171	119	88	67	53	43
		L/180	-	-	-	-	-	-	-
22	Single Span	W/Ω	412	263	183	134	103	81	66
		L/180	-	-	-	-	-	-	-
	Double Span	W/Ω	245	183	127	93	72	57	45
		L/180	-	-	-	-	-	-	-
	Triple Span	W/Ω	278	223	158	117	90	70	57
		L/180	-	-	-	-	-	-	-

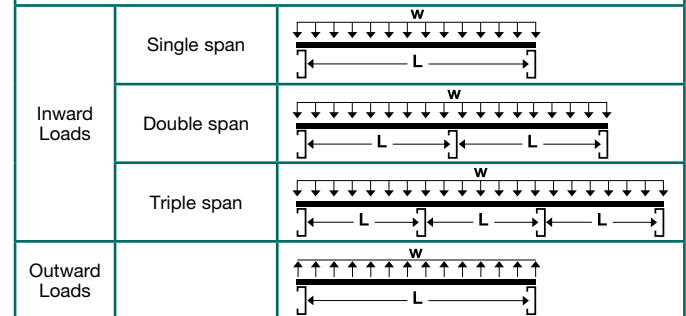
Gauge	Allowable Outward Loads (lbs/ft ²) per Span (ft.-in.)								
	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	49	42	36	30	29	29	29	28	28
22	74	66	58	49	49	48	47	47	46

17" and 18" Design Span hp									
Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)						
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	Single Span	f	275	178	124	91	70	55	44
		L/180	-	-	-	-	-	-	-
	Double Span	f	190	123	86	62	48	38	31
		L/180	-	-	-	-	-	-	-
	Triple Span	f	236	152	107	78	60	47	38
		L/180	-	-	-	-	-	-	-
22	Single Span	f	368	235	164	120	92	73	59
		L/180	-	-	-	-	-	-	-
	Double Span	f	218	163	113	83	64	50	40
		L/180	-	-	-	-	-	-	-
	Triple Span	f	247	198	141	103	79	63	51
		L/180	-	-	-	-	-	-	-

Gauge	Allowable Outward Loads (lbs/ft ²) per Span (ft.-in.)								
	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	48	42	35	29	29	28	28	28	27
22	67	59	51	43	43	42	42	41	41

LOADING TABLE LEGEND

W/Ω - Allowable panel strength
 L - Span (Inches)
 L/180 - Load limited by a deflection of 1/180 of the span
 W - Distributed load



NOTES:

- The information in these tables applies to uniform loads only.
- Upper values based on allowable panel strength. Bottom values based on allowable service load deflection of L/180.
- "-" denotes that capacities are limited by panel strength vs. deflection.
- Steel conforms to ASTM A792 (ZINCALUME[®]) 50,000 psi minimum yield.
- Values are based on AISI S100-07/S2-10.
- Maximum allowable outward load capacities are shown and dependent upon fastener-to-substrate capacities. Refer to IAPMO-UES report #ER-0309 for specific product capacities.

Specifications subject to change without notice.

Oil Canning

All flat metal surfaces can display waviness commonly referred to as "oil canning". "Oil canning" is an inherent characteristic of steel products, not a defect, and therefore is not a cause for panel rejection.



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For most current versions of literature please visit
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