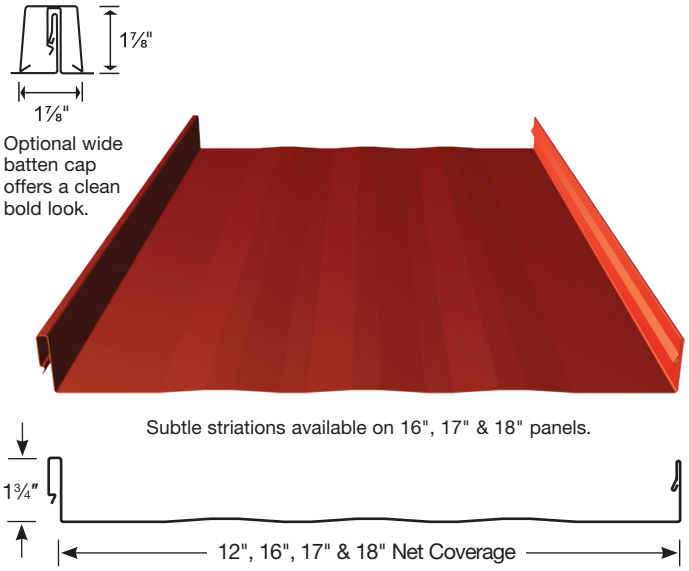
Design Span® *hp*

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/ft²)	I+ (in⁴/ft)	S+ (in³/ft)	I- (in³/ft)	S- (in³/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: $(2I_{Effective} + I_{Gross})/3$

standard features

- Offered in 12", 16", 17" & 18" widths.
- Factory applied sealant is a standard offer.
- Custom manufactured sheet lengths from 5'-3" to 45'-0".
- Subtle striations between ribs available for 16" and wider panels.
- 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, no field seaming required.
- Panel evaluated by accredited third party. All structural performance data is contained within an IBC/IRC 2018 code compliance report #ER-0309.

optional features

- Short cut sheets from 6'-0" to 1'-0". Additional fees and lead times may apply.
- Lengths over 45' available for additional charge.
- Additional wide batten cap 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.

Customer Service Center
Tacoma, WA
Phone: 800-733-4955
Fax: 253-272-0791

For most current versions of literature please visit **www.aepspan.com**

Design Span® *hp*

AEP SPAN

12" Design Span *hp*

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft²) 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	1295	663	384	242	162	114	83
	Double Span	W/Ω	275	180	126	93	71	56	46
		L/180	3120	1597	924	582	390	274	200
	Triple Span	W/Ω	337	221	156	116	89	71	57
		L/180	2444	1251	724	456	305	215	156
22	Single Span	W/Ω	539	345	240	176	135	106	86
		L/180	1663	851	493	310	208	146	106
	Double Span	W/Ω	367	239	167	123	95	75	61
		L/180	4006	2051	1187	747	501	352	256
	Triple Span	W/Ω	451	295	207	153	118	93	76
		L/180	3138	1607	930	586	392	275	201

Gauge	Allowable Outward Loads (lbs/ft²) 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/ft²) 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	1030	527	305	192	129	90	66
	Double Span	W/Ω	206	135	94	70	54	43	34
		L/180	2481	1270	735	463	310	218	159
	Triple Span	W/Ω	253	166	117	86	66	52	43
		L/180	1943	995	576	363	243	171	124
22	Single Span	W/Ω	412	263	183	134	103	81	66
		L/180	1325	678	393	247	166	116	85
	Double Span	W/Ω	245	180	126	92	71	56	45
		L/180	3191	1634	946	595	399	280	204
	Triple Span	W/Ω	278	222	155	115	89	70	57
		L/180	2500	1280	741	466	312	219	160

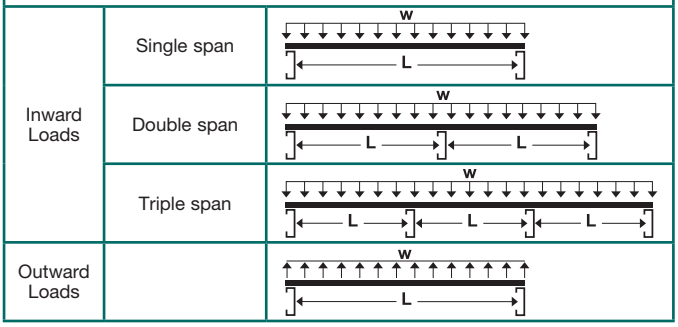
Gauge	Allowable Outward Loads (lbs/ft²) per Span (ft.-in.)								
	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	49	42	36	30	29	29	29	28	28
22	74	66	58	49	49	48	47	47	46

17" and 18" Design Span *hp*

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft²) per Span (ft.-in.)						
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
24	Single Span	W/Ω	275	178	124	91	70	55	44
		L/180	937	480	278	175	117	82	60
	Double Span	W/Ω	184	120	84	62	48	38	31
		L/180	2258	1156	669	421	282	198	144
	Triple Span	W/Ω	225	147	104	77	59	47	38
		L/180	1769	906	524	330	221	155	113
22	Single Span	W/Ω	368	235	164	120	92	73	59
		L/180	1207	618	358	225	151	106	77
	Double Span	W/Ω	218	160	111	82	63	50	40
		L/180	2907	1488	861	542	363	255	186
	Triple Span	W/Ω	247	196	139	102	79	63	51
		L/180	2277	1166	675	425	285	200	146

Gauge	Allowable Outward Loads (lbs/ft²) 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.
- Steel conforms to ASTM A792 (ZINCALUME®) 50,000 psi minimum yield.
- Values are based on S100-16/S1-18.
- 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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