Flex Series

Flex Series is a concealed fastener metal wall collection which offers design flexibility. Ideal for vertical and horizontal wall, fascia, and equipment screen applications.

Flex Series panels are available with a high performance clip, offering unlimited thermal movement while reducing chances of oil canning.

Shown with flush clip

Shown with standoff clip

Shown as direct fastened

Product Specification Guide

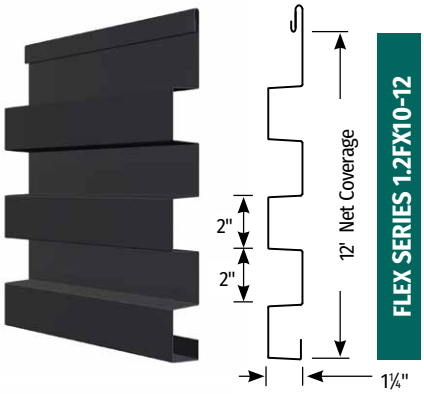
Panel Height	Product Series	Model		Panel Width	Attachment		Gauge(s)		Color
1.2	FX	20	–	12	C		22		Regal White
	Flex Series	10			D: Direct Fastened		22		Refer to AEP Span Color Chart
		20			C: Clip Attached		20		
		30							
		40							

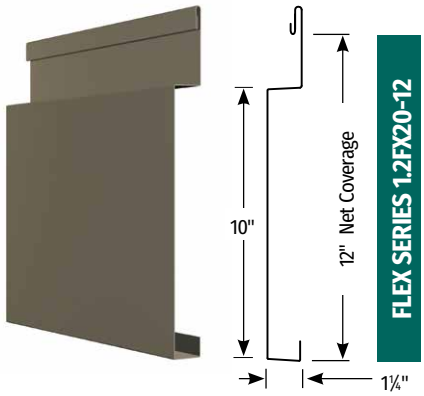
1.2 FX _____ – 12 _____ _____ ga _____

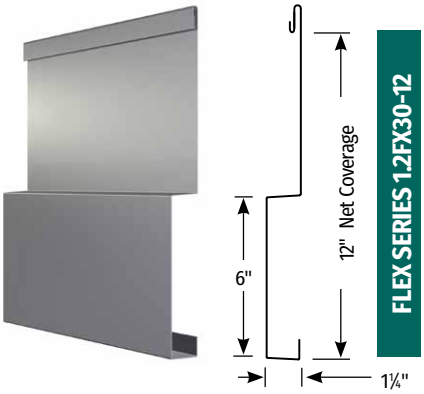
Model Gauge Color

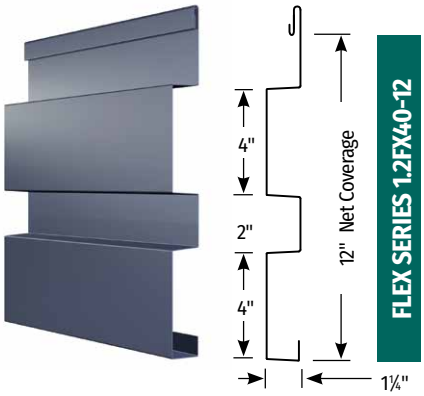
standard features

- Available in two panel attachment configurations - a directly attached fastening flange or clip interlocking hem.
- Two clip options enable panels to be installed flush to substrate or with a ½" standoff.
- Panels can be used in a rainscreen system.
- Available in 22ga in standard finishes. 20ga available by special order. - Refer to AEP Span Color Charts for full range of color options, prints, textures, finishes and paint systems.
- Custom colors, thick film primer and/or clear coat paint finishes available. Subject to 3,000 square feet minimum order.
- Custom manufactured sheet lengths from 5'-0" to 40'-0" maximum.
- ASTM E1592 (wind uplift), ASTM E283 (air infiltration), ASTM E331 (water infiltration) tested.
- Panel evaluated by accredited third party. All structural performance data is contained within an IBC/IRC 2018 code compliance report #ER-0309.









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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Flex Series

Flex Series 1.2FX10-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft²)	I+ (in⁴/ft)	S+ (in³/ft)	I- (in⁴/ft)	S- (in³/ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.76	0.1349	0.1360	0.1315	0.1527	AZ50	Cool Dura Tech™ *5000* (polyvinylidene fluoride) or Cool Dura Tech™ *mx* (metallic polyvinylidene)
22	0.0294	50	65	2.22	0.1763	0.1909	0.1721	0.2160	AZ50	
20	0.0354	40	55	2.66	0.2150	0.2614	0.2117	0.2902	G90	

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	679	302	170	109	75	55	42
		L/180	1474	437	184	94	55	34	23
	Double Span	ASD, W/Ω	539	318	184	119	83	61	46
		L/180	3551	1052	444	227	132	83	55
	Triple Span	ASD, W/Ω	613	389	227	147	103	76	59
		L/180	2782	824	348	178	103	65	43
22	Single Span	ASD, W/Ω	953	423	238	152	106	78	60
		L/180	1927	571	241	123	71	45	30
	Double Span	ASD, W/Ω	832	445	258	167	117	86	66
		L/180	4641	1375	580	297	172	108	73
	Triple Span	ASD, W/Ω	946	541	316	207	145	107	82
		L/180	3636	1077	454	233	135	85	57
20	Single Span	ASD, W/Ω	1044	464	261	167	116	85	65
		L/180	2349	696	294	150	87	55	37
	Double Span	ASD, W/Ω	936	471	275	178	125	93	71
		L/180	>5k	1677	707	362	210	132	88
	Triple Span	ASD, W/Ω	1064	568	336	221	156	115	88
		L/180	4433	1313	554	284	164	103	69

Flex Series 1.2FX20-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft²)	I+ (in⁴/ft)	S+ (in³/ft)	I- (in⁴/ft)	S- (in³/ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.40	0.0803	0.0496	0.0986	0.0742	AZ50	Cool Dura Tech™ *5000* (polyvinylidene fluoride) or Cool Dura Tech™ *mx* (metallic polyvinylidene)
22	0.0294	50	65	1.76	0.1083	0.0715	0.1347	0.1060	AZ50	
20	0.0354	40	55	2.11	0.1407	0.1029	0.1710	0.1505	G90	

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	248	110	62	40	28	20	15
		L/180	877	260	110	56	32	20	14
	Double Span	ASD, W/Ω	180	120	86	56	39	29	23
		L/180	2113	626	264	135	78	49	33
	Triple Span	ASD, W/Ω	204	136	102	69	49	36	27
		L/180	1655	490	207	106	61	39	26
22	Single Span	ASD, W/Ω	357	159	89	57	40	29	22
		L/180	1183	350	148	76	44	28	18
	Double Span	ASD, W/Ω	277	185	121	79	55	41	32
		L/180	2849	844	356	182	106	66	45
	Triple Span	ASD, W/Ω	315	210	146	97	69	51	39
		L/180	2232	661	279	143	83	52	35
20	Single Span	ASD, W/Ω	411	183	103	66	46	34	26
		L/180	1537	455	192	98	57	36	24
	Double Span	ASD, W/Ω	312	208	133	88	62	47	35
		L/180	3702	1097	463	237	137	86	58
	Triple Span	ASD, W/Ω	355	236	159	107	76	57	44
		L/180	2900	859	363	186	107	68	45

Flex Series 1.2FX30-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft²)	I+ (in⁴/ft)	S+ (in³/ft)	I- (in⁴/ft)	S- (in³/ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.40	0.0933	0.0524	0.0954	0.0734	AZ50	Cool Dura Tech™ *5000* (polyvinylidene fluoride) or Cool Dura Tech™ *mx* (metallic polyvinylidene)
22	0.0294	50	65	1.76	0.1265	0.2488	0.1287	0.1056	AZ50	
20	0.0354	40	55	2.11	0.1652	0.1072	0.1633	0.1524	G90	

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	262	116	65	42	29	21	16
		L/180	1020	302	127	65	38	24	16
	Double Span	ASD, W/Ω	180	120	85	56	39	29	22
		L/180	2456	728	307	157	91	57	38
	Triple Span	ASD, W/Ω	204	136	102	68	48	35	28
		L/180	1924	570	241	123	71	45	30
22	Single Span	ASD, W/Ω	426	284	213	170	138	101	78
		L/180	1382	410	173	88	51	32	22
	Double Span	ASD, W/Ω	277	185	120	79	55	41	32
		L/180	3330	987	416	213	123	78	52
	Triple Span	ASD, W/Ω	315	210	145	96	69	51	39
		L/180	2609	773	326	167	97	61	41
20	Single Span	ASD, W/Ω	428	190	107	68	48	35	27
		L/180	1805	535	226	116	67	42	28
	Double Span	ASD, W/Ω	312	208	135	89	64	47	36
		L/180	4348	1288	543	278	161	101	68
	Triple Span	ASD, W/Ω	355	236	161	108	77	58	44
		L/180	3406	1009	426	218	126	79	53

Flex Series 1.2FX40-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft²)	I+ (in⁴/ft)	S+ (in³/ft)	I- (in⁴/ft)	S- (in³/ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.58	0.1148	0.0953	0.1243	0.1174	AZ50	Cool Dura Tech™ *5000* (polyvinylidene fluoride) or Cool Dura Tech™ *mx* (metallic polyvinylidene)
22	0.0294	50	65	1.99	0.1533	0.1362	0.1645	0.1665	AZ50	
20	0.0354	40	55	2.38	0.1960	0.1930	0.2047	0.2334	G90	

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	476	211	119	76	53	39	30
		L/180	1254	372	157	80	46	29	20
	Double Span	ASD, W/Ω	359	240	140	90	63	47	36
		L/180	3021	895	378	193	112	70	47
	Triple Span	ASD, W/Ω	408	272	171	112	79	58	45
		L/180	2367	701	296	151	88	55	37
22	Single Span	ASD, W/Ω	680	302	170	109	76	55	42
		L/180	1675	496	209	107	62	39	26
	Double Span	ASD, W/Ω	555	335	196	128	89	66	51
		L/180	4034	1195	504	258	149	94	63
	Triple Span	ASD, W/Ω	631	404	239	158	111	82	63
		L/180	3160	936	395	202	117	74	49
20	Single Span	ASD, W/Ω	770	342	193	123	86	63	48
		L/180	2141	635	268	137	79	50	33
	Double Span	ASD, W/Ω	624	365	216	142	99	74	57
		L/180	>5k	1528	645	330	191	120	81
	Triple Span	ASD, W/Ω	709	436	262	174	122	91	71
		L/180	4041	1197	505	259	150	94	63

Outward Load Capacity

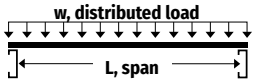
Panel / Gauge	Maximum* Negative (Outward) Uniform Load Capacity (lbs/ft²) / Span (ft. - in.)						
	2' - 0"	2' - 6"	3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"
1.2FX10-12d, 20-24ga (DIRECT FASTENED)	100	93	87	80	73	67	60
1.2FX20/30/40-12d, 20-24ga (DIRECT FASTENED)	89	81	74	67	60	53	45
1.2FX10/20/30/40-12c, 24ga (CLIP ATTACHED)	87	78	69	60	51	42	33
1.2FX10/20/30/40-12c, 20-22ga (CLIP ATTACHED)	86	81	76	72	67	62	57

*Maximum allowable outward load capacities are shown and dependent upon fastener-to-substrate capacities. Refer to IAPMO-UES report #ER-0309 for specific product system capacities.

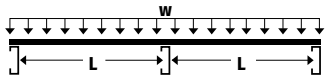
Table Notes

Inward Loads

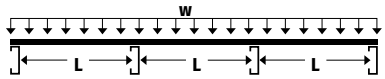
Single Span



Double Span



Triple Span



NOTES:

The values W/Ω (ASD) are based on allowable panel strength.

L/180 values based on allowable service load deflections.

The moments of inertia, I+ and I-, presented for determining deflection are: $(2I_{Effective} + I_{Gross})/3$

Values are based on AISI S100-16/S1-18.

Specifications subject to change without notice.

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