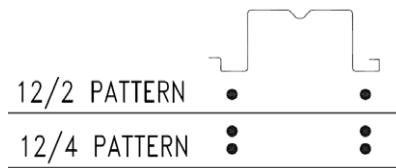
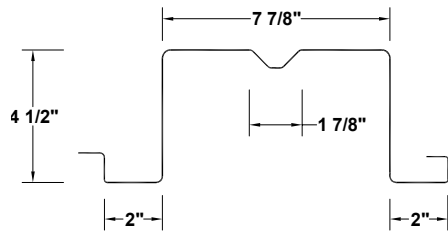


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Deep Deck



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w psf	t in	F _y ksi	F _u ksi	A _g in ² /ft	I _g in ⁴ /ft	y _b in	y _t in	S _g in ³ /ft	r in
20	2.88	0.0359	40	55	0.868	2.817	2.40	2.100	1.174	1.802
18	3.87	0.0478	40	55	1.154	3.727	2.40	2.100	1.553	1.797
16	4.86	0.0598	40	55	1.442	4.634	2.40	2.100	1.931	1.792
14	6.14	0.0750	40	55	1.807	5.767	2.40	2.100	2.403	1.787

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								I _d = (2I _e +I _g)/3	
A _e ⁺ in ² /ft	S _e ⁺ in ³ /ft	y _b in	S _e ⁻ in ³ /ft	y _b in	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	I ⁺ in ⁴ /ft	I ⁻ in ⁴ /ft	
20	0.798	1.108	2.27	1.156	2.42	2.519	2.792	2.618	2.800
18	1.154	1.535	2.34	1.551	2.40	3.591	3.725	3.636	3.726
16	1.442	1.931	2.40	1.931	2.40	4.634	4.634	4.634	4.634
14	1.807	2.403	2.40	2.403	2.40	5.767	5.767	5.767	5.767

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) (lbs/ft width)				LRFD (ϕPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	370	458	581	738	567	700	889	1130
	Interior	630	754	929	1151	938	1122	1381	1712
18	End	646	789	991	1276	988	1207	1516	1952
	Interior	1104	1304	1587	1986	1642	1939	2360	2955
16	End	994	1203	1497	1914	1521	1840	2291	2928
	Interior	1706	1996	2406	2985	2538	2969	3578	4440
14	End	1535	1838	2267	2874	2348	2812	3469	4397
	Interior	2646	3066	3659	4499	3936	4560	5443	6692

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Deep Deck

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	177	123	90	69	55	44	37	31	26	23	20
		Φf_b	281	195	143	110	87	70	58	49	42	36	31
		L/360	114	66	42	28	20	14	11	8	7	5	4
		L/240	172	99	63	42	29	21	16	12	10	8	6
		L/180	-	-	83	56	39	29	21	17	13	10	8
	L/120	-	-	-	-	-	43	32	25	20	16	13	
	DS	f_b/Ω	185	128	94	72	57	46	38	32	27	24	21
		Φf_b	293	203	149	114	90	73	61	51	43	37	33
		L/360	-	-	-	72	51	37	28	21	17	13	11
		L/240	-	-	-	-	-	-	-	32	25	20	16
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	231	160	118	90	71	58	48	40	34	29	26
		Φf_b	366	254	187	143	113	92	76	64	54	47	41
		L/360	-	156	98	66	46	34	25	20	15	12	10
L/240		-	-	-	-	69	51	38	29	23	18	15	
L/180		-	-	-	-	-	-	-	39	31	25	20	
L/120	-	-	-	-	-	-	-	-	-	-	-		
18	SS	f_b/Ω	245	170	125	96	76	61	51	43	36	31	27
		Φf_b	389	270	198	152	120	97	80	67	58	50	43
		L/360	159	92	58	39	27	20	15	11	9	7	6
		L/240	238	138	87	58	41	30	22	17	14	11	9
		L/180	-	-	116	78	54	40	30	23	18	14	12
	L/120	-	-	-	-	-	60	45	34	27	22	18	
	DS	f_b/Ω	248	172	126	97	76	62	51	43	37	32	28
		Φf_b	393	273	201	154	121	98	81	68	58	50	44
		L/360	-	-	-	96	67	49	37	28	22	18	15
		L/240	-	-	-	-	-	-	-	43	33	27	22
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	310	215	158	121	96	77	64	54	46	39	34
		Φf_b	491	341	251	192	152	123	102	85	73	63	55
		L/360	-	208	131	88	62	45	34	26	20	16	13
L/240		-	-	-	-	92	67	51	39	31	25	20	
L/180		-	-	-	-	-	-	-	52	41	33	27	
L/120	-	-	-	-	-	-	-	-	-	-	-		
16	SS	f_b/Ω	308	214	157	120	95	77	64	54	46	39	34
		Φf_b	489	340	250	191	151	122	101	85	72	62	54
		L/360	203	117	74	49	35	25	19	15	12	9	8
		L/240	304	176	111	74	52	38	29	22	17	14	11
		L/180	-	-	148	99	69	51	38	29	23	18	15
	L/120	-	-	-	-	-	76	57	44	35	28	23	
	DS	f_b/Ω	308	214	157	120	95	77	64	54	46	39	34
		Φf_b	489	340	250	191	151	122	101	85	72	62	54
		L/360	-	-	-	119	84	61	46	35	28	22	18
		L/240	-	-	-	-	-	-	-	53	42	33	27
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	385	268	197	151	119	96	80	67	57	49	43
		Φf_b	611	425	312	239	189	153	126	106	90	78	68
		L/360	-	259	163	109	77	56	42	32	25	20	17
L/240		-	-	-	-	115	84	63	48	38	31	25	
L/180		-	-	-	-	-	-	-	65	51	41	33	
L/120	-	-	-	-	-	-	-	-	-	-	-		
14	SS	f_b/Ω	384	266	196	150	118	96	79	67	57	49	43
		Φf_b	609	423	311	238	188	152	126	106	90	78	68
		L/360	252	146	92	62	43	32	24	18	14	11	9
		L/240	378	219	138	92	65	47	36	27	22	17	14
		L/180	-	-	184	123	86	63	47	36	29	23	19
	L/120	-	-	-	-	-	95	71	55	43	34	28	
	DS	f_b/Ω	384	266	196	150	118	96	79	67	57	49	43
		Φf_b	609	423	311	238	188	152	126	106	90	78	68
		L/360	-	-	-	148	104	76	57	44	35	28	22
		L/240	-	-	-	-	-	-	-	66	52	41	34
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	480	333	245	187	148	120	99	83	71	61	53
		Φf_b	761	528	388	297	235	190	157	132	113	97	85
		L/360	-	322	203	136	95	70	52	40	32	25	21
L/240		-	-	-	-	143	104	78	60	47	38	31	
L/180		-	-	-	-	-	-	-	80	63	51	41	
L/120	-	-	-	-	-	-	-	-	-	-	-		

DEEP DECK PANELS

5.1 4.5D-12

Deep Deck

Allowable Wind Uplift Loads

4.5D-12		Support Fastener Pattern: 12 / 2											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	94	72	57	46	38	32	27
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	38	32	27
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		185	128	94	72	57	46	38	32	27
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	27
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	94	72	57	46	38	32	27
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	38	32	27
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		185	128	94	72	57	46	38	32	27
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	27
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	101	88	71	58	48	40	34
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		191	159	118	90	71	58	48	40	34
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

4.5D-12		Support Fastener Pattern: 12 / 4											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	94	72	57	46	38	32	27
	Hilti X-ENP-19 L15	≥ 1/4"	705		185	128	94	72	57	46	38	32	27
	Hilti X-HSN 24	1/8" - 3/8"	435		174	128	94	72	57	46	38	32	27
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		185	128	94	72	57	46	38	32	27
	Simpson XL Screws	≥ 1/8"	385		154	128	94	72	57	46	38	32	27
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	94	72	57	46	38	32	27
	Hilti X-ENP-19 L15	≥ 1/4"	705		185	128	94	72	57	46	38	32	27
	Hilti X-HSN 24	1/8" - 3/8"	435		174	128	94	72	57	46	38	32	27
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		185	128	94	72	57	46	38	32	27
	Simpson XL Screws	≥ 1/8"	385		154	128	94	72	57	46	38	32	27
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	96	84	71	58	48	40	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		231	161	118	90	71	58	48	40	34
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	118	90	71	58	48	40	34
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		231	161	118	90	71	58	48	40	34
	Simpson XL Screws	≥ 1/8"	385		154	128	110	90	71	58	48	40	34

Notes:

- 1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
- 2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
- 3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
- 4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
- 5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
- 6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
- 7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

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Allowable Wind Uplift Loads

4.5D-12				Support Fastener Pattern: 12 / 2									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	97	77	62	51	43	37
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		248	172	127	97	77	62	51	43	37
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	97	77	62	51	43	37
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		248	172	127	97	77	62	51	43	37
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	101	89	78	64	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		258	215	158	121	96	78	64	54	46
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

4.5D-12				Support Fastener Pattern: 12 / 4									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	127	97	77	62	51	43	37
	Hilti X-ENP-19 L15	≥ 1/4"	805		248	172	127	97	77	62	51	43	37
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	97	77	62	51	43	37
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		248	172	127	97	77	62	51	43	37
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	77	62	51	43	37
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	127	97	77	62	51	43	37
	Hilti X-ENP-19 L15	≥ 1/4"	805		248	172	127	97	77	62	51	43	37
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	97	77	62	51	43	37
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		248	172	127	97	77	62	51	43	37
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	77	62	51	43	37
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	128	112	96	78	64	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	805		310	215	158	121	96	78	64	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	96	78	64	54	46
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		310	215	158	121	96	78	64	54	46
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	64	54	46

DEEP DECK PANELS

Notes:

- 1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
- 2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
- 3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
- 4) Simpson XL fastener capacities per IAPMO-JES ER326 compliance report utilizing a min. substrate Fu=50ksi.
- 5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
- 6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
- 7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

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Deep Deck

Allowable Wind Uplift Loads

4.5D-12				Support Fastener Pattern: 12 / 2									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	95	77	64	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		309	215	158	121	95	77	64	54	46
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	95	77	64	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		309	215	158	121	95	77	64	54	46
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	67	57
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	268	197	151	119	97	80	67	57
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

4.5D-12				Support Fastener Pattern: 12 / 4									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	121	95	77	64	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	880		309	215	158	121	95	77	64	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	95	77	64	54	46
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		309	215	158	121	95	77	64	54	46
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	64	54	46
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	121	95	77	64	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	880		309	215	158	121	95	77	64	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	95	77	64	54	46
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		309	215	158	121	95	77	64	54	46
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	64	54	46
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	97	80	67	57
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	268	197	151	119	97	80	67	57
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	67	57
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		386	268	197	151	119	97	80	67	57
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	57

Notes:

- 1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
- 2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
- 3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
- 4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
- 5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
- 6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
- 7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

4.5D-12 5.1 Deep Deck

Allowable Wind Uplift Loads

4.5D-12				Support Fastener Pattern: 12 / 2										
Allowable Wind Uplift Load (psf)														
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)									
					10	12	14	16	18	20	22	24	26	
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40	
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	79	67	57	
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33	
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	267	196	150	119	96	79	67	57	
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30	
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40	
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	79	67	57	
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33	
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	267	196	150	119	96	79	67	57	
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30	
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40	
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68	
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33	
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	188	148	120	99	83	71	
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30	

4.5D-12				Support Fastener Pattern: 12 / 4										
Allowable Wind Uplift Load (psf)														
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)									
					10	12	14	16	18	20	22	24	26	
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	96	79	67	57	
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	267	196	150	119	96	79	67	57	
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	67	57	
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		384	267	196	150	119	96	79	67	57	
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	57	
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	96	79	67	57	
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	267	196	150	119	96	79	67	57	
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	67	57	
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		384	267	196	150	119	96	79	67	57	
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	57	
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	83	71	
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	245	188	148	120	99	83	71	
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67	
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		481	334	245	188	148	120	99	83	71	
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59	

DEEP DECK PANELS

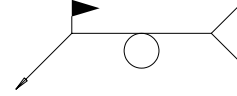
Notes:

- 1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
- 2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
- 3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
- 4) Simpson XL fastener capacities per IAPMO-JES ER326 compliance report utilizing a min. substrate Fu=50ksi.
- 5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
- 6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
- 7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

5.1 4.5D-12

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

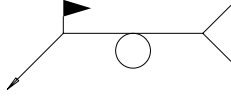


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
12/2	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-13.2	+316.6R	-6.9	+211.1R	-3.7	+158.3R	-1.8	+126.6R	-0.6	+105.5R	0.3	+90.5R	1	+79.2R	1.5	+70.4R	2	+63.3R	
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-12.3	+316.5R	-6	+211R	-2.8	+158.3R	-0.9	+126.6R	0.4	+105.5R	1.3	+90.4R	2	+79.1R	2.5	+70.3R	2.9	+63.3R	
		8"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-11.5	+316.5R	-5.1	+211R	-1.9	+158.2R	0	+126.6R	1.3	+105.5R	2.2	+90.4R	2.9	+79.1R	3.4	+70.3R	3.9	+63.3R	
	12"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	
		F	-9.8	+316.2R	-3.3	+210.8R	-0.1	+158.1R	1.9	+126.5R	3.2	+105.4R	4.1	+90.3R	4.8	+79R	5.3	+70.2R	5.8	+63.2R		
	18"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	
		F	-7.5	+315.8R	-0.9	+210.5R	2.5	+157.8R	4.5	+126.2R	5.8	+105.2R	6.8	+90.1R	7.5	+78.9R	8.1	+70.1R	8.5	+63.1R		
	24"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	
		F	-5.5	+315.3R	1.4	+210R	4.9	+157.5R	7	+125.9R	8.4	+104.9R	9.4	+89.9R	10.2	+78.7R	10.8	+69.9R	11.2	+62.9R		
	18 ga	4"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-4.6	+151.5R	-1.6	+101R	0	+75.7R	0.9	+60.6R	1.5	+50.5R	1.9	+43.3R	2.2	+37.9R	2.5	+33.7R	2.7	+30.3R	
		6"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-3.8	+151.4R	-0.8	+101R	0.8	+75.7R	1.7	+60.6R	2.3	+50.5R	2.7	+43.3R	3.1	+37.9R	3.3	+33.6R	3.5	+30.3R	
		8"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-3.1	+151.4R	0	+100.9R	1.6	+75.7R	2.5	+60.5R	3.1	+50.4R	3.6	+43.2R	3.9	+37.8R	4.1	+33.6R	4.3	+30.3R	
	12"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	
		F	-1.7	+151.2R	1.5	+100.8R	3.1	+75.6R	4.1	+60.4R	4.7	+50.4R	5.2	+43.2R	5.5	+37.8R	5.8	+33.6R	6	+30.2R		
	18"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	
		F	0.3	+150.8R	3.7	+100.5R	5.3	+75.3R	6.3	+60.2R	7	+50.2R	7.5	+43R	7.9	+37.6R	8.1	+33.4R	8.4	+30.1R		
	24"	q_a	q_f	988	1581	988	1581	963	1581	930	1535	908	1498	892	1472	880	1452	871	1437	863	1425	
		F	2.1	+150.4R	5.7	+100.1R	7.4	+75R	8.5	+60R	9.2	+50R	9.8	+42.8R	10.2	+37.4R	10.5	+33.3R	10.7	+29.9R		
16 ga	4"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	
		F	-1.4	+85.8R	0.3	+57.2R	1.2	+42.9R	1.7	+34.3R	2	+28.6R	2.3	+24.5R	2.5	+21.4R	2.6	+19.1R	2.7	+17.2R		
	6"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	
		F	-0.7	+85.7R	1	+57.2R	1.9	+42.9R	2.4	+34.3R	2.8	+28.6R	3	+24.5R	3.2	+21.4R	3.4	+19R	3.5	+17.1R		
	8"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	
		F	-0.1	+85.7R	1.7	+57.1R	2.6	+42.8R	3.1	+34.3R	3.5	+28.5R	3.7	+24.5R	3.9	+21.4R	4.1	+19R	4.2	+17.1R		
12"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414		
	F	1.2	+85.5R	3.1	+57R	4	+42.7R	4.5	+34.2R	4.9	+28.5R	5.2	+24.4R	5.4	+21.4R	5.5	+19R	5.6	+17.1R			
18"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1474	2414	1509	2414		
	F	3	+85.2R	5	+56.7R	6	+42.5R	6.6	+34R	7	+28.3R	7.3	+24.3R	7.5	+21.2R	7.6	+18.9R	7.8	+17R			
24"	q_a	q_f	1467	2414	1339	2210	1274	2101	1234	2036	1207	1992	1188	1960	1173	1936	1162	1917	1153	1902		
	F	4.6	+84.8R	6.7	+56.4R	7.8	+42.2R	8.5	+33.8R	9	+28.1R	9.3	+24.1R	9.5	+21.1R	9.7	+18.7R	9.9	+16.8R			
14 ga	4"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	
		F	0.3	+47.1R	1.2	+31.4R	1.7	+23.5R	2	+18.8R	2.2	+15.7R	2.3	+13.4R	2.4	+11.8R	2.5	+10.5R	2.5	+9.4R		
	6"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	
		F	0.9	+47R	1.8	+31.3R	2.3	+23.5R	2.6	+18.8R	2.8	+15.7R	2.9	+13.4R	3	+11.8R	3.1	+10.4R	3.2	+9.4R		
	8"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	
		F	1.5	+47R	2.4	+31.3R	2.9	+23.5R	3.2	+18.8R	3.4	+15.6R	3.6	+13.4R	3.7	+11.7R	3.8	+10.4R	3.8	+9.4R		
12"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331		
	F	2.6	+46.8R	3.6	+31.2R	4.2	+23.4R	4.5	+18.7R	4.7	+15.6R	4.9	+13.4R	5	+11.7R	5.1	+10.4R	5.1	+9.3R			
18"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	1990	3283	2019	3331		
	F	4.1	+46.5R	5.3	+31R	5.9	+23.2R	6.3	+18.5R	6.5	+15.4R	6.7	+13.2R	6.8	+11.6R	6.9	+10.3R	7	+9.3R			
24"	q_a	q_f	1943	3206	1789	2951	1709	2820	1661	2740	1628	2686	1605	2648	1587	2619	1573	2596	1562	2578		
	F	5.6	+46.2R	6.9	+30.7R	7.6	+23R	8	+18.3R	8.3	+15.3R	8.5	+13.1R	8.7	+11.4R	8.8	+10.2R	8.9	+9.1R			

4.5D-12 5.1

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
12/4	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F	-13.3	+316.6R	-6.9	+211R	-3.8	+158.3R	-1.9	+126.6R	-0.6	+105.5R	0.3	+90.4R	1	+79.1R	1.5	+70.3R	2	+63.3R	
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-12.5	+316.4R	-6.1	+211R	-2.9	+158.2R	-0.9	+126.6R	0.3	+105.5R	1.2	+90.4R	1.9	+79.1R	2.5	+70.3R	2.9	+63.3R	
		8"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-11.7	+316.3R	-5.2	+210.8R	-2	+158.1R	-0.1	+126.5R	1.2	+105.4R	2.2	+90.3R	2.9	+79R	3.4	+70.3R	3.8	+63.2R	
	12"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	
		F	-10.3	+316R	-3.7	+210.6R	-0.4	+157.9R	1.6	+126.3R	3	+105.2R	3.9	+90.2R	4.6	+78.9R	5.2	+70.1R	5.6	+63.1R		
	18"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	
		F	-8.5	+315.5R	-1.6	+210.1R	1.9	+157.5R	4	+125.9R	5.4	+104.9R	6.5	+89.9R	7.2	+78.6R	7.8	+69.9R	8.3	+62.9R		
	24"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	
		F	-6.9	+314.9R	0.3	+209.6R	4	+157R	6.3	+125.5R	7.8	+104.5R	8.8	+89.5R	9.7	+78.3R	10.3	+69.6R	10.8	+62.6R		
	18 ga	4"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-4.6	+151.4R	-1.6	+101R	-0.1	+75.7R	0.9	+60.6R	1.5	+50.5R	1.9	+43.3R	2.2	+37.9R	2.5	+33.7R	2.7	+30.3R	
		6"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-3.9	+151.4R	-0.8	+100.9R	0.7	+75.7R	1.6	+60.5R	2.3	+50.4R	2.7	+43.2R	3	+37.8R	3.3	+33.6R	3.5	+30.3R	
		8"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-3.3	+151.2R	-0.1	+100.8R	1.5	+75.6R	2.4	+60.5R	3	+50.4R	3.5	+43.2R	3.8	+37.8R	4.1	+33.6R	4.3	+30.2R	
	12"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	
		F	-2.1	+151R	1.2	+100.6R	2.9	+75.4R	3.9	+60.3R	4.5	+50.2R	5	+43.1R	5.4	+37.7R	5.6	+33.5R	5.9	+30.1R		
	18"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	
		F	-0.5	+150.5R	3.1	+100.2R	4.8	+75R	5.9	+60R	6.7	+49.9R	7.2	+42.8R	7.6	+37.4R	7.9	+33.3R	8.1	+29.9R		
	24"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	969	1581	954	1575	
		F	0.9	+150R	4.7	+99.7R	6.6	+74.6R	7.9	+59.6R	8.7	+49.6R	9.3	+42.5R	9.7	+37.1R	10.1	+33R	10.3	+29.7R		
16 ga	4"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	
		F	-1.5	+85.7R	0.3	+57.2R	1.2	+42.9R	1.7	+34.3R	2	+28.6R	2.3	+24.5R	2.5	+21.4R	2.6	+19.1R	2.7	+17.1R		
	6"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	
		F	-0.8	+85.7R	0.9	+57.1R	1.8	+42.8R	2.4	+34.3R	2.7	+28.5R	3	+24.5R	3.2	+21.4R	3.3	+19R	3.4	+17.1R		
	8"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	
		F	-0.2	+85.6R	1.6	+57R	2.5	+42.8R	3.1	+34.2R	3.4	+28.5R	3.7	+24.4R	3.9	+21.4R	4	+19R	4.2	+17.1R		
12"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414		
	F	0.9	+85.3R	2.8	+56.8R	3.8	+42.6R	4.4	+34R	4.8	+28.4R	5	+24.3R	5.3	+21.3R	5.4	+18.9R	5.6	+17R			
18"	q_a	q_f	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414	1509	2414		
	F	2.3	+84.9R	4.4	+56.4R	5.5	+42.3R	6.2	+33.8R	6.7	+28.1R	7	+24.1R	7.2	+21.1R	7.4	+18.7R	7.6	+16.8R			
24"	q_a	q_f	1509	2414	1509	2414	1509	2414	1442	2379	1387	2288	1347	2223	1318	2174	1294	2136	1276	2105		
	F	3.4	+84.5R	5.9	+56R	7.1	+41.9R	7.9	+33.4R	8.5	+27.8R	8.8	+23.8R	9.1	+20.8R	9.4	+18.5R	9.5	+16.6R			
14 ga	4"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	
		F	0.2	+47R	1.2	+31.4R	1.7	+23.5R	2	+18.8R	2.1	+15.7R	2.3	+13.4R	2.4	+11.8R	2.5	+10.5R	2.5	+9.4R		
	6"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	
		F	0.8	+47R	1.8	+31.3R	2.3	+23.5R	2.6	+18.8R	2.8	+15.6R	2.9	+13.4R	3	+11.7R	3.1	+10.4R	3.2	+9.4R		
	8"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	
		F	1.3	+46.9R	2.3	+31.2R	2.9	+23.4R	3.2	+18.7R	3.4	+15.6R	3.5	+13.4R	3.7	+11.7R	3.7	+10.4R	3.8	+9.4R		
12"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331		
	F	2.3	+46.6R	3.4	+31R	4	+23.3R	4.3	+18.6R	4.6	+15.5R	4.7	+13.3R	4.9	+11.6R	5	+10.3R	5	+9.3R			
18"	q_a	q_f	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331	2019	3331		
	F	3.5	+46.3R	4.9	+30.7R	5.5	+23R	6	+18.3R	6.3	+15.3R	6.5	+13.1R	6.6	+11.4R	6.8	+10.1R	6.9	+9.1R			
24"	q_a	q_f	2019	3331	2019	3331	2019	3331	1942	3203	1872	3090	1823	3008	1786	2947	1757	2900	1733	2860		
	F	4.6	+45.9R	6.1	+30.4R	7	+22.6R	7.5	+18R	7.8	+15R	8.1	+12.8R	8.3	+11.2R	8.5	+9.9R	8.6	+8.9R			

4.5D-12 12/4

Support Attachment: 0.5" Effective Dia. Arc Spot Weld

Side Seam Attachment: Top Seam Side-Lap Weld

DEEP DECK PANELS

5.1 4.5D-12

No. 12 Self-Drilling Screws to Supports with

No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →		4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
12/2	20 ga	4"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F		-24.4 +749.6R		-9.1 +499.7R		-1.5 +374.7R		3.1 +299.8R		6.1 +249.8R		8.3 +214.1R		9.9 +187.4R		11.2 +166.5R		12.2 +149.9R	
		6"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F		-19.3 +748.8R		-3.7 +499.1R		4.1 +374.2R		8.8 +299.4R		11.9 +249.5R		14.1 +213.8R		15.8 +187.1R		17.1 +166.3R		18.2 +149.7R	
		8"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F		-14.6 +747.8R		1.4 +498.3R		9.4 +373.6R		14.3 +298.8R		17.5 +249R		19.8 +213.4R		21.6 +186.7R		22.9 +166R		24 +149.4R	
	12"	q_a	q_f	369	594	339	545	323	520	314	505	307	495	303	488	299	482	297	478	295	474	
		F		-6.2 +745.7R		10.9 +496.5R		19.6 +372R		24.8 +297.5R		28.3 +247.8R		30.9 +212.3R		32.7 +185.7R		34.2 +165.1R		35.4 +148.5R		
	18"	q_a	q_f	302	594	249	402	259	417	236	379	220	355	230	370	219	353	211	339	217	350	
		F		4.5 +742.2R		23.6 +493.2R		33.5 +369.1R		39.5 +294.8R		43.6 +245.4R		46.5 +210.2R		48.7 +183.8R		50.4 +163.3R		51.8 +146.9R		
	24"	q_a	q_f	231	372	202	325	187	301	178	287	172	278	168	271	165	266	163	262	161	259	
		F		13.4 +738.8R		34.7 +489.8R		45.9 +365.8R		52.9 +291.8R		57.7 +242.6R		61.2 +207.5R		63.8 +181.3R		65.9 +161R		67.5 +144.7R		
	18 ga	4"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F		-4.9 +358.4R		2.5 +238.9R		6.2 +179.2R		8.5 +143.3R		10 +119.4R		11 +102.4R		11.8 +89.6R		12.4 +79.6R		12.9 +71.7R	
		6"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F		-0.5 +357.7R		7.2 +238.4R		11.1 +178.7R		13.4 +143R		14.9 +119.1R		16.1 +102.1R		16.9 +89.3R		17.5 +79.4R		18.1 +71.5R	
		8"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F		3.6 +356.9R		11.6 +237.7R		15.7 +178.2R		18.2 +142.5R		19.8 +118.7R		21 +101.7R		21.9 +89R		22.5 +79.1R		23.1 +71.2R	
	12"	q_a	q_f	524	844	504	812	484	780	472	760	464	747	458	738	454	731	450	725	448	721	
		F		10.9 +355R		19.9 +236.1R		24.5 +176.8R		27.3 +141.3R		29.1 +117.7R		30.5 +100.8R		31.5 +88.2R		32.3 +78.4R		32.9 +70.5R		
	18"	q_a	q_f	452	844	376	605	391	630	358	577	336	541	349	561	333	536	321	516	331	533	
		F		20.1 +352.1R		30.8 +233.3R		36.4 +174.3R		39.9 +139.1R		42.3 +115.6R		44 +99R		45.3 +86.5R		46.3 +76.8R		47.1 +69R		
	24"	q_a	q_f	341	548	301	485	282	454	270	435	262	422	257	413	252	406	249	401	247	397	
		F		27.7 +349.1R		40.4 +230.4R		47.2 +171.5R		51.5 +136.4R		54.5 +113.2R		56.6 +96.7R		58.3 +84.4R		59.6 +74.8R		60.7 +67.2R		
	16 ga	4"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060
			F		2 +202.8R		6.3 +135.2R		8.4 +101.4R		9.7 +81.1R		10.6 +67.6R		11.2 +57.9R		11.7 +50.7R		12 +45R		12.3 +40.5R	
		6"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060
			F		5.9 +202.2R		10.5 +134.7R		12.7 +101R		14.1 +80.8R		15 +67.3R		15.7 +57.7R		16.2 +50.5R		16.6 +44.8R		16.9 +40.4R	
		8"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060
			F		9.5 +201.4R		14.4 +134.1R		16.9 +100.5R		18.4 +80.4R		19.4 +66.9R		20.1 +57.4R		20.6 +50.2R		21 +44.6R		21.4 +40.1R	
12"	q_a	q_f	658	1060	658	1060	658	1060	646	1041	637	1025	629	1013	624	1005	620	998	617	993		
	F		16.1 +199.8R		21.8 +132.7R		24.7 +99.3R		26.5 +79.3R		27.7 +66R		28.6 +56.5R		29.2 +49.4R		29.7 +43.9R		30.1 +39.5R			
18"	q_a	q_f	612	1060	517	832	534	860	491	791	462	744	480	773	459	740	443	714	458	737		
	F		24.3 +197.1R		31.5 +130.2R		35.4 +97R		37.8 +77.3R		39.4 +64.2R		40.6 +54.9R		41.5 +47.9R		42.2 +42.5R		42.8 +38.2R			
24"	q_a	q_f	461	743	412	663	387	624	373	600	363	584	356	573	351	564	346	558	343	553		
	F		31.1 +194.5R		40 +127.5R		45 +94.5R		48.1 +74.9R		50.3 +62R		51.9 +52.8R		53.1 +46R		54.1 +40.8R		54.9 +36.6R			
14 ga	4"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F		5.4 +111.1R		7.8 +74R		9 +55.5R		9.7 +44.4R		10.2 +37R		10.6 +31.7R		10.8 +27.7R		11 +24.7R		11.2 +22.2R		
	6"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F		8.8 +110.6R		11.5 +73.6R		12.8 +55.2R		13.6 +44.1R		14.2 +36.8R		14.5 +31.5R		14.8 +27.6R		15.1 +24.5R		15.2 +22R		
	8"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F		12 +109.9R		15 +73.1R		16.5 +54.8R		17.4 +43.8R		18 +36.4R		18.4 +31.2R		18.8 +27.3R		19 +24.3R		19.2 +21.8R		
12"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347		
	F		17.8 +108.4R		21.5 +71.8R		23.4 +53.7R		24.6 +42.8R		25.4 +35.6R		26 +30.5R		26.4 +26.6R		26.7 +23.7R		27 +21.3R			
18"	q_a	q_f	837	1347	714	1149	743	1196	685	1103	646	1040	673	1084	645	1039	623	1003	644	1038		
	F		25.1 +106.1R		30.2 +69.6R		32.9 +51.7R		34.6 +41R		35.8 +34R		36.7 +29R		37.3 +25.3R		37.8 +22.4R		38.2 +20.1R			
24"	q_a	q_f	642	1033	575	925	543	875	525	845	512	824	503	810	495	797	489	787	484	779		
	F		31.2 +103.7R		37.7 +67.3R		41.4 +49.4R		43.8 +38.9R		45.4 +32.1R		46.7 +27.2R		47.6 +23.6R		48.4 +20.9R		49 +18.7R			

4.5D-12 5.1

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f
12/4	20 ga	4"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-25.2 +749.1R	-9.7 +499.3R	-2 +374.4R	2.7 +299.5R	5.8 +249.6R	8 +213.9R	9.7 +187.2R	11 +166.4R	12 +149.7R										
		6"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-21 +748R	-5 +498.3R	3.1 +373.6R	8 +298.8R	11.2 +249R	13.5 +213.4R	15.3 +186.7R	16.7 +165.9R	17.7 +149.3R										
		8"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-17.3 +746.9R	-0.6 +497.3R	7.8 +372.7R	12.9 +298R	16.4 +248.2R	18.8 +212.7R	20.7 +186R	22.1 +165.3R	23.3 +148.8R										
	12"	q_a	q_f	390	629	390	629	387	623	367	591	353	569	344	554	337	542	331	533	327	526	
		F	-11.2 +744.6R	6.9 +495R	16.3 +370.5R	22 +296R	25.9 +246.4R	28.7 +211R	30.8 +184.5R	32.5 +163.9R	33.8 +147.4R											
	18"	q_a	q_f	390	629	325	523	315	507	281	452	258	415	262	422	247	398	236	379	241	388	
		F	-4.3 +741.5R	16 +491.6R	27 +367R	33.9 +292.6R	38.6 +243.1R	42.1 +207.9R	44.7 +181.5R	46.8 +161.1R	48.5 +144.8R											
	24"	q_a	q_f	344	553	277	446	244	392	223	360	210	338	201	323	193	311	188	302	183	295	
		F	0.7 +739R	23.3 +488.4R	35.8 +363.6R	43.9 +289.1R	49.6 +239.7R	53.9 +204.5R	57.2 +178.3R	59.8 +157.9R	61.9 +141.7R											
	18 ga	4"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-5.6 +358R	2 +238.6R	5.9 +178.9R	8.2 +143.1R	9.7 +119.2R	10.8 +102.2R	11.6 +89.4R	12.3 +79.5R	12.8 +71.5R										
		6"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-1.9 +357.1R	6.2 +237.8R	10.2 +178.2R	12.7 +142.5R	14.4 +118.7R	15.5 +101.7R	16.4 +89R	17.1 +79.1R	17.7 +71.2R										
		8"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	1.2 +356.1R	9.9 +236.8R	14.3 +177.4R	17 +141.7R	18.8 +118R	20.1 +101.1R	21.1 +88.4R	21.8 +78.6R	22.5 +70.7R										
	12"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	522	840	512	824	504	811	497	801	
		F	6.5 +354.1R	16.4 +234.9R	21.6 +175.5R	24.8 +140R	27 +116.4R	28.6 +99.6R	29.8 +87.1R	30.8 +77.3R	31.6 +69.5R											
	18"	q_a	q_f	524	844	477	768	469	755	420	676	387	623	395	637	374	602	357	575	366	589	
		F	12.4 +351.4R	24.3 +231.9R	30.8 +172.5R	35 +137.1R	38 +113.7R	40.1 +97R	41.8 +84.6R	43.1 +74.9R	44.2 +67.2R											
	24"	q_a	q_f	492	792	402	648	358	576	331	532	313	503	300	483	290	467	283	455	277	446	
		F	16.8 +349.3R	30.5 +229.2R	38.5 +169.6R	43.7 +134.1R	47.5 +110.7R	50.3 +94.1R	52.6 +81.7R	54.3 +72.2R	55.8 +64.6R											
16 ga	4"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	1.4 +202.4R	5.8 +134.8R	8.1 +101.1R	9.4 +80.9R	10.3 +67.4R	11 +57.7R	11.5 +50.5R	11.9 +44.9R	12.2 +40.4R											
	6"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	4.6 +201.6R	9.5 +134.1R	12 +100.5R	13.5 +80.3R	14.5 +66.9R	15.2 +57.3R	15.8 +50.1R	16.2 +44.6R	16.5 +40.1R											
	8"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	7.5 +200.7R	12.8 +133.3R	15.6 +99.8R	17.3 +79.7R	18.5 +66.3R	19.3 +56.8R	19.9 +49.6R	20.4 +44.1R	20.8 +39.7R											
12"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060		
	F	12.2 +198.9R	18.7 +131.6R	22.1 +98.1R	24.3 +78.1R	25.8 +64.9R	26.9 +55.5R	27.7 +48.4R	28.4 +43R	28.9 +38.6R												
18"	q_a	q_f	658	1060	643	1036	639	1029	574	925	531	855	545	877	516	830	493	794	507	816		
	F	17.5 +196.6R	25.7 +128.9R	30.4 +95.4R	33.4 +75.5R	35.6 +62.4R	37.2 +53.1R	38.4 +46.2R	39.4 +40.8R	40.2 +36.6R												
24"	q_a	q_f	651	1049	539	868	483	777	449	723	426	686	410	660	398	641	389	626	381	614		
	F	21.4 +194.6R	31.3 +126.5R	37.2 +92.8R	41.2 +72.8R	44.1 +59.7R	46.3 +50.5R	48 +43.7R	49.4 +38.4R	50.6 +34.2R												
14 ga	4"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F	4.8 +110.8R	7.4 +73.8R	8.7 +55.3R	9.5 +44.2R	10 +36.8R	10.4 +31.6R	10.7 +27.6R	10.9 +24.5R	11.1 +22.1R											
	6"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F	7.7 +110R	10.6 +73.1R	12.2 +54.7R	13.1 +43.7R	13.7 +36.4R	14.1 +31.2R	14.5 +27.3R	14.7 +24.2R	15 +21.8R											
	8"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F	10.2 +109.2R	13.6 +72.4R	15.4 +54.1R	16.5 +43.2R	17.2 +35.9R	17.7 +30.7R	18.2 +26.8R	18.5 +23.8R	18.7 +21.4R											
12"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347		
	F	14.4 +107.7R	18.7 +70.8R	21.2 +52.6R	22.7 +41.8R	23.7 +34.6R	24.5 +29.6R	25.1 +25.8R	25.6 +22.8R	25.9 +20.5R												
18"	q_a	q_f	837	1347	837	1347	837	1347	801	1290	743	1196	765	1232	726	1168	695	1119	715	1151		
	F	19.1 +105.6R	25 +68.5R	28.5 +50.3R	30.8 +39.5R	32.4 +32.4R	33.6 +27.5R	34.6 +23.8R	35.3 +20.9R	36 +18.7R												
24"	q_a	q_f	837	1347	736	1185	664	1069	621	1000	593	954	572	921	557	897	545	877	535	862		
	F	22.5 +103.9R	29.9 +66.4R	34.5 +47.9R	37.6 +37.1R	39.9 +30.1R	41.7 +25.1R	43.1 +21.5R	44.2 +18.8R	45.1 +16.6R												

5.1 4.5D-12

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
			q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	
12/2	20 ga	4"	q_a q_f	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909		
			F	-25.4 +779.5R	-9.5 +519.6R	-1.6 +389.7R	3.2 +311.8R	6.4 +259.8R	8.6 +222.7R	10.3 +194.8R	11.7 +173.2R	12.7 +155.9R										
		6"	q_a q_f	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909
			F	-20.2 +778.7R	-3.9 +519R	4.2 +389.2R	9.1 +311.3R	12.3 +259.4R	14.7 +222.3R	16.4 +194.5R	17.8 +172.9R	18.9 +155.6R										
		8"	q_a q_f	563 906	515 829	490 789	475 765	465 749	458 737	452 728	448 722	445 716										
			F	-15.3 +777.7R	1.4 +518.2R	9.8 +388.5R	14.8 +310.7R	18.2 +258.9R	20.6 +221.9R	22.4 +194.2R	23.8 +172.6R	24.9 +155.3R										
	12"	q_a q_f	424 682	378 608	355 572	341 550	332 535	326 524	321 517	317 510	314 506											
		F	-6.7 +775.4R	11.2 +516.2R	20.2 +386.8R	25.7 +309.3R	29.4 +257.6R	32 +220.7R	34 +193.1R	35.5 +171.6R	36.7 +154.4R											
	18"	q_a q_f	352 682	282 455	283 456	255 411	237 381	244 393	231 372	222 357	228 367											
		F	4.3 +771.8R	24.2 +512.8R	34.5 +383.8R	40.8 +306.5R	45.1 +255.1R	48.2 +218.5R	50.5 +191R	52.3 +169.7R	53.8 +152.6R											
	24"	q_a q_f	280 451	235 378	212 341	198 319	189 304	182 294	178 286	174 280	171 275											
		F	13.2 +768.3R	35.5 +509.2R	47.3 +380.3R	54.6 +303.3R	59.6 +252.1R	63.3 +215.7R	66 +188.4R	68.2 +167.2R	70 +150.4R											
	18 ga	4"	q_a q_f	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	
			F	-5.1 +372.7R	2.6 +248.4R	6.5 +186.3R	8.8 +149R	10.3 +124.2R	11.5 +106.5R	12.3 +93.1R	12.9 +82.8R	13.4 +74.5R										
		6"	q_a q_f	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304	810 1304										
			F	-0.6 +372R	7.4 +247.9R	11.5 +185.9R	13.9 +148.7R	15.5 +123.9R	16.7 +106.2R	17.5 +92.9R	18.2 +82.6R	18.8 +74.3R										
		8"	q_a q_f	810 1304	763 1229	732 1179	713 1148	700 1128	691 1113	684 1102	679 1093	675 1086										
			F	3.6 +371.1R	12 +247.2R	16.3 +185.3R	18.8 +148.2R	20.5 +123.4R	21.8 +105.8R	22.7 +92.6R	23.4 +82.3R	24 +74R										
	12"	q_a q_f	628 1010	567 913	537 864	519 835	507 816	497 800	489 788	483 778	479 770											
		F	11.1 +369.2R	20.5 +245.5R	25.3 +183.8R	28.2 +146.9R	30.2 +122.3R	31.6 +104.8R	32.7 +91.6R	33.5 +81.4R	34.2 +73.3R											
	18"	q_a q_f	516 1010	418 674	425 685	385 620	358 576	370 596	352 567	338 544	349 561											
		F	20.5 +366.1R	31.7 +242.6R	37.6 +181.2R	41.3 +144.5R	43.8 +120.2R	45.6 +102.8R	46.9 +89.8R	48 +79.8R	48.9 +71.7R											
	24"	q_a q_f	405 651	344 554	314 505	296 476	284 457	275 443	268 432	263 424	259 418											
		F	28.2 +363R	41.5 +239.5R	48.7 +178.2R	53.2 +141.7R	56.3 +117.6R	58.6 +100.4R	60.4 +87.6R	61.7 +77.7R	62.9 +69.8R											
16 ga	4"	q_a q_f	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617		
		F	2.1 +210.9R	6.5 +140.5R	8.8 +105.4R	10.1 +84.3R	11 +70.3R	11.6 +60.2R	12.1 +52.7R	12.5 +46.8R	12.8 +42.1R											
	6"	q_a q_f	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617	1004 1617											
		F	6.1 +210.2R	10.8 +140R	13.2 +105R	14.6 +84R	15.6 +70R	16.3 +60R	16.8 +52.5R	17.2 +46.6R	17.5 +42R											
	8"	q_a q_f	1004 1617	1004 1617	996 1603	974 1567	958 1543	948 1526	939 1512	933 1502	928 1494											
		F	9.8 +209.5R	14.9 +139.4R	17.5 +104.5R	19.1 +83.5R	20.1 +69.6R	20.8 +59.6R	21.4 +52.2R	21.8 +46.4R	22.2 +41.7R											
12"	q_a q_f	852 1372	777 1252	737 1187	712 1146	695 1119	683 1099	674 1085	667 1073	661 1064												
	F	16.5 +207.7R	22.5 +137.9R	25.6 +103.2R	27.4 +82.4R	28.7 +68.6R	29.6 +58.7R	30.3 +51.4R	30.9 +45.6R	31.3 +41R												
18"	q_a q_f	696 1372	568 915	583 939	529 852	493 794	512 825	488 785	468 754	484 780												
	F	24.9 +204.9R	32.5 +135.3R	36.6 +100.8R	39.1 +80.3R	40.8 +66.6R	42.1 +57R	43 +49.7R	43.8 +44.1R	44.4 +39.6R												
24"	q_a q_f	539 867	464 747	426 686	404 650	389 626	378 609	370 596	364 586	359 578												
	F	31.8 +202.2R	41.2 +132.5R	46.4 +98.1R	49.7 +77.8R	52 +64.3R	53.7 +54.8R	55 +47.7R	56.1 +42.3R	56.9 +37.9R												
14 ga	4"	q_a q_f	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020		
		F	5.5 +115.5R	8.1 +77R	9.3 +57.7R	10.1 +46.2R	10.6 +38.5R	11 +33R	11.3 +28.9R	11.5 +25.6R	11.6 +23.1R											
	6"	q_a q_f	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020											
		F	9.1 +115R	11.9 +76.5R	13.3 +57.4R	14.1 +45.9R	14.7 +38.2R	15.1 +32.8R	15.4 +28.7R	15.6 +25.5R	15.8 +22.9R											
	8"	q_a q_f	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020	1255 2020											
		F	12.4 +114.3R	15.5 +76R	17.1 +56.9R	18 +45.5R	18.7 +37.9R	19.1 +32.5R	19.5 +28.4R	19.8 +25.2R	20 +22.7R											
12"	q_a q_f	1168 1881	1071 1724	1020 1643	990 1594	969 1560	954 1537	943 1519	935 1505	928 1494												
	F	18.4 +112.7R	22.2 +74.7R	24.3 +55.8R	25.5 +44.5R	26.3 +37R	26.9 +31.7R	27.4 +27.7R	27.8 +24.6R	28 +22.1R												
18"	q_a q_f	962 1881	787 1267	815 1312	742 1194	693 1116	723 1163	688 1108	662 1066	684 1102												
	F	25.8 +110.3R	31.1 +72.3R	34 +53.7R	35.8 +42.6R	37.1 +35.3R	38 +30.1R	38.7 +26.2R	39.2 +23.2R	39.7 +20.9R												
24"	q_a q_f	738 1188	637 1026	590 950	562 905	543 875	530 853	520 837	512 824	506 814												
	F	31.9 +107.8R	38.8 +69.9R	42.7 +51.3R	45.2 +40.4R	47 +33.2R	48.3 +28.2R	49.3 +24.5R	50.1 +21.6R	50.8 +19.3R												

4.5D-12 5.1

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q _a) (plf), Factored Shear (q _f) (plf), and Flexibility Factor (F) (10 ⁻⁶ in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
				q _a	q _f	F	q _a	q _f	F	q _a	q _f	F	q _a	q _f	F	q _a	q _f	F	q _a	q _f	F	q _a
12/4	20 ga	4"	q _a	q _f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-26.3	+779R	-10.2	+519.2R	-2.1	+389.3R	2.8	+311.4R	6	+259.5R	8.3	+222.4R	10.1	+194.6R	11.4	+173R	12.5	+155.7R	
		6"	q _a	q _f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-22	+777.9R	-5.2	+518.2R	3.2	+388.5R	8.2	+310.7R	11.6	+258.9R	14	+221.9R	15.9	+194.1R	17.3	+172.5R	18.4	+155.2R	
		8"	q _a	q _f	568	909	568	909	568	909	555	894	534	860	520	836	508	818	500	804	493	793
			F	-18.2	+776.7R	-0.8	+517.1R	8	+387.5R	13.3	+309.8R	16.9	+258.1R	19.5	+221.1R	21.4	+193.4R	22.9	+171.9R	24.1	+154.7R	
	12"	q _a	q _f	568	909	496	798	443	714	412	663	391	630	376	606	365	588	356	574	349	562	
		F	-12	+774.3R	6.9	+514.7R	16.7	+385.2R	22.7	+307.7R	26.8	+256.1R	29.7	+219.3R	31.9	+191.7R	33.6	+170.3R	35	+153.2R		
	18"	q _a	q _f	528	909	400	644	372	598	326	525	296	476	294	474	275	443	261	420	263	424	
		F	-5.1	+771.2R	16.2	+511.2R	27.6	+381.6R	34.8	+304.2R	39.8	+252.7R	43.4	+216.1R	46.2	+188.7R	48.4	+167.4R	50.2	+150.4R		
	24"	q _a	q _f	457	735	352	567	300	483	269	433	248	399	233	375	222	357	213	343	206	332	
		F	0	+768.6R	23.5	+508R	36.6	+378.1R	45.1	+300.6R	51	+249.1R	55.5	+212.5R	58.9	+185.2R	61.7	+164.1R	63.9	+147.2R		
	18 ga	4"	q _a	q _f	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304
			F	-5.9	+372.3R	2.1	+248.1R	6.1	+186R	8.5	+148.8R	10.1	+124R	11.2	+106.2R	12.1	+93R	12.7	+82.6R	13.3	+74.4R	
		6"	q _a	q _f	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304	810	1304
			F	-2.1	+371.3R	6.3	+247.2R	10.6	+185.3R	13.2	+148.1R	14.9	+123.4R	16.1	+105.7R	17.1	+92.5R	17.8	+82.2R	18.4	+74R	
		8"	q _a	q _f	810	1304	810	1304	810	1304	810	1304	808	1300	787	1267	771	1242	759	1222	749	1206
			F	1.1	+370.3R	10.2	+246.3R	14.8	+184.4R	17.6	+147.4R	19.5	+122.7R	20.8	+105.1R	21.9	+91.9R	22.7	+81.7R	23.3	+73.5R	
	12"	q _a	q _f	810	1304	723	1164	654	1053	612	986	585	941	565	909	550	885	538	867	529	852	
		F	6.5	+368.2R	16.8	+244.2R	22.3	+182.5R	25.6	+145.5R	28	+121R	29.6	+103.6R	30.9	+90.5R	31.9	+80.3R	32.7	+72.2R		
	18"	q _a	q _f	750	1304	574	925	542	873	479	770	436	702	437	704	411	661	390	628	395	637	
		F	12.4	+365.5R	24.8	+241.1R	31.7	+179.3R	36.1	+142.5R	39.2	+118.1R	41.5	+100.8R	43.2	+87.8R	44.6	+77.8R	45.8	+69.8R		
	24"	q _a	q _f	639	1028	500	805	431	694	389	627	362	582	342	550	327	526	315	508	306	493	
		F	16.8	+363.3R	31.1	+238.4R	39.4	+176.3R	44.9	+139.4R	48.9	+115R	51.9	+97.7R	54.2	+84.8R	56.1	+74.9R	57.7	+67R		
16 ga	4"	q _a	q _f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	
		F	1.4	+210.5R	6	+140.2R	8.4	+105.1R	9.8	+84.1R	10.7	+70R	11.4	+60R	11.9	+52.5R	12.3	+46.7R	12.6	+42R		
	6"	q _a	q _f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	
		F	4.7	+209.6R	9.8	+139.5R	12.4	+104.5R	14	+83.5R	15	+69.5R	15.8	+59.6R	16.4	+52.1R	16.8	+46.3R	17.2	+41.7R		
	8"	q _a	q _f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	
		F	7.6	+208.7R	13.2	+138.6R	16.2	+103.7R	17.9	+82.8R	19.1	+68.9R	20	+59R	20.7	+51.6R	21.2	+45.8R	21.6	+41.2R		
12"	q _a	q _f	1004	1617	971	1563	885	1425	833	1342	799	1287	775	1247	756	1217	742	1194	730	1176		
	F	12.4	+206.9R	19.2	+136.8R	22.8	+102R	25.1	+81.2R	26.7	+67.4R	27.9	+57.6R	28.7	+50.3R	29.4	+44.6R	30	+40.1R			
18"	q _a	q _f	986	1617	762	1226	728	1172	645	1039	590	950	595	959	560	902	533	858	542	873		
	F	17.7	+204.4R	26.3	+134R	31.2	+99.2R	34.4	+78.5R	36.7	+64.8R	38.4	+55.1R	39.7	+47.9R	40.8	+42.4R	41.6	+38R			
24"	q _a	q _f	829	1335	657	1058	571	920	520	837	485	782	461	742	443	712	428	689	417	671		
	F	21.6	+202.5R	31.9	+131.5R	38.1	+96.5R	42.4	+75.7R	45.4	+62R	47.7	+52.4R	49.6	+45.3R	51	+39.8R	52.2	+35.5R			
14 ga	4"	q _a	q _f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	
		F	4.9	+115.2R	7.6	+76.7R	9	+57.5R	9.8	+46R	10.4	+38.3R	10.8	+32.8R	11.1	+28.7R	11.3	+25.5R	11.5	+23R		
	6"	q _a	q _f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	
		F	7.9	+114.4R	11	+76R	12.6	+56.9R	13.6	+45.5R	14.2	+37.8R	14.7	+32.4R	15	+28.3R	15.3	+25.2R	15.5	+22.7R		
	8"	q _a	q _f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	
		F	10.5	+113.6R	14	+75.3R	15.9	+56.2R	17.1	+44.8R	17.8	+37.3R	18.4	+31.9R	18.8	+27.9R	19.2	+24.8R	19.4	+22.3R		
12"	q _a	q _f	1255	2020	1255	2020	1221	1966	1157	1862	1114	1793	1083	1744	1060	1707	1042	1678	1028	1655		
	F	14.7	+112R	19.3	+73.6R	21.8	+54.7R	23.4	+43.4R	24.5	+36R	25.4	+30.7R	26	+26.7R	26.5	+23.7R	26.9	+21.3R			
18"	q _a	q _f	1255	2020	1029	1656	996	1604	887	1428	814	1311	826	1330	779	1254	743	1195	758	1221		
	F	19.4	+109.8R	25.6	+71.2R	29.3	+52.2R	31.7	+41R	33.4	+33.6R	34.7	+28.5R	35.7	+24.6R	36.5	+21.7R	37.2	+19.4R			
24"	q _a	q _f	1100	1771	879	1415	772	1242	707	1138	664	1069	634	1020	611	983	593	954	578	931		
	F	22.9	+108.1R	30.6	+69R	35.4	+49.8R	38.7	+38.5R	41.1	+31.2R	43	+26R	44.5	+22.3R	45.6	+19.4R	46.6	+17.2R			

DEEP DECK PANELS

5.1 4.5D-12

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

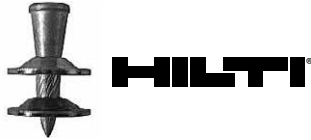


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/2	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F	-43.4 +1298.6R	-16.6 +865.6R	-3.2 +649.1R	4.9 +519.2R	10.2 +432.7R	14.1 +370.9R	16.9 +324.5R	19.2 +288.4R	21 +259.6R												
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-35.7 +1296.8R	-8.1 +864.1R	5.8 +647.8R	14.2 +518.2R	19.8 +431.7R	23.8 +370R	26.7 +323.7R	29.1 +287.7R	30.9 +258.9R												
		8"	q_a	q_f	568	909	526	848	499	804	483	778	472	760	464	747	458	738	454	730	450	724	450	724
			F	-28.9 +1294.9R	-0.2 +862.3R	14.3 +646.3R	23 +516.8R	28.9 +430.5R	33.1 +368.9R	36.2 +322.7R	38.7 +286.8R	40.7 +258.1R												
	12"	q_a	q_f	434	699	385	620	360	580	346	556	336	541	329	529	324	521	319	514	316	509	316	509	
		F	-17.4 +1290.8R	13.7 +858.5R	29.6 +642.7R	39.4 +513.6R	46 +427.6R	50.7 +366.2R	54.3 +320.2R	57.1 +284.5R	59.3 +256R													
	18"	q_a	q_f	362	699	289	466	289	465	260	418	240	387	247	397	234	377	224	360	230	371	230	371	
		F	-4.1 +1285.2R	30.9 +852.4R	49.5 +636.8R	61.1 +507.9R	69 +422.2R	74.8 +361.2R	79.2 +315.5R	82.7 +280.1R	85.5 +251.8R													
	24"	q_a	q_f	291	468	242	389	217	349	202	326	192	310	185	299	180	290	176	284	173	278	173	278	
		F	6 +1280.4R	44.8 +846.7R	66.2 +630.8R	79.9 +501.9R	89.4 +416.3R	96.5 +355.5R	101.9 +310.1R	106.2 +274.8R	109.8 +246.8R													
	18 ga	4"	q_a	q_f	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405
			F	-9.4 +620.7R	3.8 +413.6R	10.3 +310.2R	14.3 +248.1R	16.9 +206.7R	18.8 +177.2R	20.2 +155R	21.3 +137.8R	22.2 +124R												
		6"	q_a	q_f	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	869	1399	865	1393	865	1393
			F	-2.7 +619.1R	11.1 +412.4R	18.1 +309.1R	22.3 +247.2R	25.2 +205.9R	27.2 +176.5R	28.7 +154.4R	29.9 +137.2R	30.8 +123.5R												
		8"	q_a	q_f	847	1364	780	1257	746	1201	725	1168	711	1145	701	1129	694	1117	688	1107	683	1100	683	1100
			F	3.1 +617.4R	17.9 +410.9R	25.4 +307.8R	30 +246R	33 +204.9R	35.2 +175.5R	36.9 +153.5R	38.2 +136.4R	39.2 +122.8R												
	12"	q_a	q_f	642	1033	576	928	544	876	524	844	511	823	502	808	495	797	489	787	484	779	484	779	
		F	13 +614R	29.9 +407.5R	38.7 +304.7R	44.1 +243.2R	47.8 +202.3R	50.4 +173.2R	52.5 +151.4R	54 +134.4R	55.3 +120.9R													
	18"	q_a	q_f	530	1033	428	689	432	696	390	629	363	584	374	603	356	572	341	549	351	566	351	566	
		F	24.5 +609.2R	44.7 +402.3R	55.8 +299.6R	62.8 +238.3R	67.7 +197.7R	71.3 +168.8R	74 +147.3R	76.2 +130.6R	77.9 +117.3R													
	24"	q_a	q_f	419	674	353	569	321	516	301	485	288	464	279	449	272	438	266	429	262	422	262	422	
		F	33.2 +605R	56.7 +397.4R	70.2 +294.4R	79 +233.1R	85.3 +192.6R	90 +163.9R	93.6 +142.6R	96.5 +126.1R	98.8 +113R													
16 ga	4"	q_a	q_f	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	
		F	2.7 +351R	10.3 +233.9R	14.2 +175.3R	16.5 +140.2R	18 +116.8R	19.1 +100.1R	20 +87.6R	20.6 +77.9R	21.1 +70.1R													
	6"	q_a	q_f	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	
		F	8.6 +349.6R	16.9 +232.7R	21.1 +174.4R	23.7 +139.4R	25.4 +116.1R	26.6 +99.5R	27.5 +87R	28.2 +77.3R	28.8 +69.6R													
	8"	q_a	q_f	1081	1741	1056	1701	1016	1635	991	1595	974	1569	962	1549	953	1535	946	1523	940	1514	940	1514	
		F	13.8 +348.1R	22.9 +231.4R	27.6 +173.2R	30.5 +138.4R	32.4 +115.2R	33.8 +98.7R	34.8 +86.3R	35.6 +76.7R	36.3 +69R													
12"	q_a	q_f	870	1400	789	1270	749	1205	724	1166	705	1136	692	1114	682	1098	674	1086	668	1075	668	1075		
	F	22.7 +345R	33.6 +228.4R	39.5 +170.4R	43.1 +135.9R	45.6 +112.9R	47.4 +96.6R	48.7 +84.4R	49.8 +74.9R	50.7 +67.3R														
18"	q_a	q_f	713	1400	580	933	592	953	536	863	499	803	517	833	492	792	472	760	488	785	488	785		
	F	32.9 +340.7R	46.9 +223.8R	54.7 +165.9R	59.8 +131.5R	63.3 +108.8R	65.9 +92.7R	68 +80.7R	69.6 +71.4R	70.8 +64.1R														
24"	q_a	q_f	556	895	475	765	435	700	411	661	394	635	383	617	374	603	368	592	362	583	362	583		
	F	40.6 +337R	57.6 +219.3R	67.6 +161.2R	74.3 +126.9R	79 +104.3R	82.6 +88.3R	85.4 +76.5R	87.7 +67.4R	89.5 +60.2R														
14 ga	4"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F	8.6 +192.1R	13 +128R	15.2 +95.9R	16.5 +76.7R	17.4 +63.9R	18.1 +54.8R	18.6 +47.9R	18.9 +42.6R	19.2 +38.3R													
	6"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F	13.8 +190.9R	18.8 +127R	21.4 +95.1R	22.9 +76R	24 +63.3R	24.7 +54.2R	25.3 +47.4R	25.7 +42.1R	26.1 +37.9R													
	8"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1340	2157	1329	2140	1321	2126	1314	2115	1314	2115	
		F	18.5 +189.6R	24.2 +125.8R	27.1 +94R	29 +75.1R	30.2 +62.4R	31.1 +53.5R	31.7 +46.7R	32.3 +41.5R	32.7 +37.3R													
12"	q_a	q_f	1202	1936	1095	1763	1040	1674	1006	1620	984	1584	968	1558	955	1538	946	1523	938	1511	938	1511		
	F	26.3 +186.8R	33.7 +123.1R	37.6 +91.6R	40.1 +72.8R	41.9 +60.4R	43.1 +51.6R	44.1 +45R	44.8 +39.9R	45.4 +35.9R														
18"	q_a	q_f	985	1936	801	1290	826	1330	751	1208	700	1128	729	1173	694	1117	667	1073	690	1111	690	1111		
	F	35.4 +183R	45.4 +119R	51.2 +87.5R	55 +69R	57.6 +56.8R	59.6 +48.2R	61.1 +41.8R	62.3 +36.9R	63.3 +33R														
24"	q_a	q_f	760	1223	651	1049	601	968	571	919	551	886	536	863	525	846	517	832	510	821	510	821		
	F	42.2 +179.7R	54.9 +115.1R	62.6 +83.4R	67.8 +64.9R	71.5 +52.7R	74.4 +44.3R	76.6 +38.1R	78.4 +33.3R	79.9 +29.6R														

4.5D-12 5.1

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →		4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"			
			q_a	q_f																				
12/4	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F		-45.5 +1297.7R		-18.2 +864.7R		-4.5 +648.3R		3.8 +518.5R		9.3 +432R		13.3 +370.3R		16.3 +323.9R		18.6 +287.9R		20.4 +259.1R			
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F		-39.7 +1295.7R		-11.2 +862.8R		3.2 +646.5R		12 +516.9R		17.9 +430.5R		22.1 +368.9R		25.3 +322.7R		27.8 +286.8R		29.7 +258R			
		8"	q_a	q_f	568	909	568	909	568	909	565	909	543	873	526	848	514	828	505	813	497	801	497	801
			F		-35.1 +1293.8R		-5.3 +860.7R		10 +644.6R		19.4 +515R		25.7 +428.8R		30.3 +367.3R		33.7 +321.2R		36.4 +285.3R		38.6 +256.7R			
	12"	q_a	q_f	568	909	512	824	455	733	422	679	399	643	383	617	371	597	362	582	354	570	354	570	
		F		-28.1 +1290.5R		4.3 +856.9R		21.5 +640.5R		32.2 +511.1R		39.6 +424.9R		45 +363.5R		49.1 +317.6R		52.3 +281.9R		55 +253.4R				
	18"	q_a	q_f	553	909	416	670	384	618	336	540	304	489	301	485	281	453	266	428	268	432	268	432	
		F		-20.9 +1286.7R		14.9 +851.9R		34.8 +634.9R		47.7 +505.1R		56.8 +418.9R		63.6 +357.5R		68.9 +311.7R		73.2 +276.1R		76.6 +247.8R				
	24"	q_a	q_f	481	774	368	593	312	502	278	448	256	412	240	386	228	367	218	352	211	339	211	339	
		F		-16.2 +1284R		22.5 +848R		44.9 +630.1R		59.9 +499.8R		70.7 +413.2R		79.1 +351.6R		85.6 +305.7R		91 +270.1R		95.4 +241.8R				
	18 ga	4"	q_a	q_f	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405
			F		-11.2 +619.9R		2.4 +412.9R		9.3 +309.5R		13.4 +247.5R		16.2 +206.2R		18.2 +176.7R		19.6 +154.6R		20.8 +137.4R		21.7 +123.6R			
		6"	q_a	q_f	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405	872	1405
			F		-6.2 +618.2R		8.4 +411.2R		15.9 +307.9R		20.5 +246.1R		23.5 +204.9R		25.8 +175.5R		27.4 +153.5R		28.7 +136.4R		29.8 +122.7R			
		8"	q_a	q_f	872	1405	872	1405	872	1405	848	1366	818	1318	797	1283	781	1257	768	1237	758	1220	758	1220
			F		-2.2 +616.5R		13.5 +409.5R		21.8 +306.2R		26.8 +244.5R		30.3 +203.4R		32.8 +174.1R		34.7 +152.2R		36.2 +135.1R		37.4 +121.5R			
	12"	q_a	q_f	872	1405	745	1199	670	1079	625	1006	595	958	574	924	558	898	546	878	536	862	536	862	
		F		3.8 +613.7R		21.8 +406.2R		31.7 +302.8R		37.9 +241R		42.3 +200R		45.5 +170.9R		48 +149.1R		50 +132.2R		51.5 +118.7R				
	18"	q_a	q_f	782	1405	596	959	558	899	491	791	447	719	447	719	419	674	397	639	402	647	402	647	
		F		10 +610.4R		30.9 +401.9R		43.1 +298R		51.3 +235.9R		57.1 +194.8R		61.6 +165.7R		65.1 +144R		67.9 +127.2R		70.3 +113.8R				
	24"	q_a	q_f	671	1080	521	840	447	719	402	647	372	599	351	565	335	539	323	519	313	503	313	503	
		F		14.1 +608.1R		37.5 +398.4R		51.8 +293.8R		61.8 +231.3R		69.2 +189.9R		74.9 +160.6R		79.5 +138.8R		83.3 +122R		86.5 +108.6R				
16 ga	4"	q_a	q_f	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	
		F		1 +350.3R		9.1 +233.2R		13.2 +174.7R		15.7 +139.7R		17.4 +116.4R		18.5 +99.7R		19.4 +87.2R		20.1 +77.5R		20.7 +69.7R				
	6"	q_a	q_f	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	
		F		5.4 +348.8R		14.5 +231.7R		19.1 +173.4R		22 +138.4R		23.9 +115.2R		25.3 +98.6R		26.4 +86.2R		27.2 +76.6R		27.9 +68.9R				
	8"	q_a	q_f	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1081	1741	1075	1730	1059	1704	1045	1683	1045	1683	
		F		9 +347.3R		19 +230.1R		24.4 +171.8R		27.7 +137R		30 +113.9R		31.6 +97.4R		32.9 +85.1R		33.9 +75.5R		34.7 +67.9R				
12"	q_a	q_f	1081	1741	997	1606	905	1457	849	1367	812	1308	786	1265	766	1233	751	1209	738	1189	738	1189		
	F		14.4 +344.7R		26.4 +227.2R		33.2 +168.8R		37.6 +133.9R		40.7 +110.9R		43 +94.5R		44.7 +82.3R		46.2 +72.9R		47.3 +65.4R					
18"	q_a	q_f	1025	1741	788	1269	748	1204	661	1064	603	971	607	977	570	918	542	872	550	886	550	886		
	F		19.9 +341.8R		34.6 +223.4R		43.4 +164.4R		49.5 +129.4R		53.9 +106.2R		57.3 +89.9R		60 +77.7R		62.2 +68.4R		64 +61R					
24"	q_a	q_f	869	1398	684	1101	591	952	536	862	499	803	472	760	452	728	437	704	425	684	425	684		
	F		23.6 +339.7R		40.4 +220.3R		51.2 +160.7R		58.9 +125.2R		64.6 +101.8R		69.2 +85.3R		72.9 +73.1R		75.9 +63.7R		78.5 +56.4R					
14 ga	4"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F		7.1 +191.5R		11.9 +127.4R		14.3 +95.4R		15.8 +76.2R		16.8 +63.5R		17.6 +54.4R		18.1 +47.6R		18.5 +42.3R		18.9 +38R				
	6"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F		11 +190.2R		16.6 +126.1R		19.6 +94.2R		21.4 +75.1R		22.7 +62.5R		23.6 +53.4R		24.3 +46.7R		24.8 +41.5R		25.2 +37.3R				
	8"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F		14.2 +188.9R		20.7 +124.7R		24.2 +92.8R		26.5 +73.8R		28 +61.3R		29.2 +52.3R		30 +45.7R		30.7 +40.5R		31.3 +36.4R				
12"	q_a	q_f	1351	2176	1351	2176	1246	2006	1177	1894	1130	1820	1097	1767	1073	1727	1053	1696	1038	1671	1038	1671		
	F		19 +186.6R		27.3 +122R		32.1 +90.1R		35.2 +71.1R		37.5 +58.6R		39.2 +49.8R		40.5 +43.2R		41.6 +38.2R		42.5 +34.1R					
18"	q_a	q_f	1351	2176	1062	1709	1021	1644	907	1460	831	1337	840	1353	792	1274	754	1213	768	1237	768	1237		
	F		23.9 +184R		34.5 +118.7R		41.2 +86.3R		45.8 +67.1R		49.3 +54.5R		51.9 +45.7R		54.1 +39.2R		55.8 +34.2R		57.3 +30.3R					
24"	q_a	q_f	1150	1852	912	1468	796	1282	727	1170	681	1096	648	1043	623	1003	604	972	588	947	588	947		
	F		27.1 +182.1R		39.7 +115.9R		48 +83R		54.1 +63.4R		58.8 +50.6R		62.5 +41.6R		65.5 +35.1R		68 +30.1R		70.1 +26.2R					

DEEP DECK PANELS

5.1 4.5D-12

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
			q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f		
12/2	20 ga	4"	q_a q_f	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909		
			F	-10.4 +325R	-3.8 +216.7R	-0.5 +162.5R	1.4 +130R	2.7 +108.3R	3.7 +92.8R	4.4 +81.2R	4.9 +72.2R	5.3 +65R										
		6"	q_a q_f	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909	568 909
			F	-7.9 +324.8R	-1.3 +216.5R	2 +162.4R	4 +129.9R	5.3 +108.3R	6.3 +92.8R	7 +81.2R	7.5 +72.2R	8 +64.9R										
		8"	q_a q_f	567 909	518 834	493 793	477 768	467 752	460 740	454 731	450 724	446 718										
			F	-5.5 +324.5R	1.2 +216.3R	4.5 +162.2R	6.6 +129.8R	7.9 +108.2R	8.9 +92.7R	9.6 +81.1R	10.1 +72.1R	10.6 +64.9R										
	12"	q_a q_f	426 686	380 611	356 574	342 551	333 536	327 526	322 518	318 511	315 506											
		F	-1 +323.9R	5.9 +215.9R	9.4 +161.9R	11.5 +129.5R	12.9 +107.9R	13.9 +92.5R	14.7 +80.9R	15.3 +71.9R	15.7 +64.7R											
	18"	q_a q_f	355 686	284 457	285 458	256 413	238 383	245 394	232 373	222 358	229 368											
		F	5.2 +322.7R	12.7 +214.9R	16.5 +161.1R	18.8 +128.8R	20.3 +107.3R	21.4 +92R	22.2 +80.5R	22.9 +71.5R	23.4 +64.4R											
	24"	q_a q_f	283 455	236 381	213 343	199 321	190 306	183 295	178 287	174 281	171 276											
		F	10.9 +321.4R	19.1 +213.8R	23.2 +160.1R	25.7 +128R	27.4 +106.6R	28.6 +91.3R	29.5 +79.9R	30.3 +71R	30.8 +63.9R											
	18 ga	4"	q_a q_f	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	
			F	-1.9 +155.5R	1.2 +103.6R	2.8 +77.7R	3.8 +62.2R	4.4 +51.8R	4.8 +44.4R	5.2 +38.9R	5.4 +34.5R	5.6 +31.1R										
		6"	q_a q_f	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312	815 1312
			F	0.2 +155.3R	3.4 +103.5R	5 +77.6R	6 +62.1R	6.6 +51.8R	7.1 +44.4R	7.4 +38.8R	7.7 +34.5R	7.9 +31.1R										
		8"	q_a q_f	815 1312	764 1231	733 1180	714 1150	701 1129	692 1114	685 1103	680 1094	675 1087										
			F	2.2 +155.1R	5.5 +103.4R	7.2 +77.5R	8.2 +62R	8.8 +51.7R	9.3 +44.3R	9.7 +38.7R	9.9 +34.4R	10.2 +31R										
	12"	q_a q_f	629 1012	568 914	537 865	519 836	507 816	497 801	490 788	484 779	479 771											
		F	6.1 +154.5R	9.7 +103R	11.4 +77.2R	12.5 +61.7R	13.2 +51.4R	13.7 +44.1R	14.1 +38.6R	14.4 +34.3R	14.6 +30.9R											
	18"	q_a q_f	517 1012	419 675	426 686	385 620	358 577	371 597	352 567	338 544	349 562											
		F	11.5 +153.5R	15.5 +102.1R	17.5 +76.5R	18.7 +61.2R	19.5 +50.9R	20.1 +43.7R	20.6 +38.2R	20.9 +33.9R	21.2 +30.5R											
	24"	q_a q_f	406 653	345 555	314 506	296 477	284 457	275 443	269 433	264 424	260 418											
		F	16.4 +152.3R	21 +101.2R	23.3 +75.7R	24.7 +60.4R	25.7 +50.3R	26.4 +43.1R	26.9 +37.7R	27.3 +33.5R	27.6 +30.1R											
16 ga	4"	q_a q_f	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603		
		F	1 +88R	2.8 +58.7R	3.7 +44R	4.3 +35.2R	4.6 +29.3R	4.9 +25.1R	5.1 +22R	5.2 +19.6R	5.4 +17.6R											
	6"	q_a q_f	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	996 1603	
		F	2.9 +87.9R	4.8 +58.6R	5.7 +43.9R	6.3 +35.1R	6.6 +29.3R	6.9 +25.1R	7.1 +22R	7.3 +19.5R	7.4 +17.6R											
	8"	q_a q_f	996 1603	996 1603	994 1600	971 1564	957 1540	946 1523	938 1510	931 1500	926 1492											
		F	4.8 +87.7R	6.7 +58.4R	7.7 +43.8R	8.2 +35R	8.6 +29.2R	8.9 +25R	9.1 +21.9R	9.3 +19.5R	9.4 +17.5R											
12"	q_a q_f	850 1369	776 1250	736 1184	711 1144	694 1117	682 1098	673 1083	666 1072	660 1063												
	F	8.2 +87.2R	10.4 +58.1R	11.4 +43.5R	12.1 +34.8R	12.5 +29R	12.8 +24.8R	13.1 +21.7R	13.2 +19.3R	13.4 +17.4R												
18"	q_a q_f	694 1369	567 913	582 937	528 851	493 793	512 824	487 784	468 753	484 779												
	F	13 +86.3R	15.6 +57.3R	16.9 +42.9R	17.7 +34.3R	18.2 +28.6R	18.6 +24.5R	18.8 +21.4R	19.1 +19R	19.2 +17.1R												
24"	q_a q_f	537 864	462 744	425 685	403 649	388 625	377 608	369 595	363 585	358 577												
	F	17.4 +85.2R	20.5 +56.5R	22 +42.2R	23 +33.7R	23.7 +28R	24.1 +24R	24.5 +20.9R	24.8 +18.6R	25 +16.7R												
14 ga	4"	q_a q_f	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964		
		F	2.5 +48.3R	3.5 +32.2R	4 +24.1R	4.3 +19.3R	4.5 +16.1R	4.6 +13.8R	4.7 +12.1R	4.8 +10.7R	4.9 +9.6R											
	6"	q_a q_f	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964		
		F	4.1 +48.1R	5.2 +32.1R	5.7 +24.1R	6 +19.2R	6.3 +16R	6.4 +13.7R	6.5 +12R	6.6 +10.7R	6.7 +9.6R											
	8"	q_a q_f	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964	1220 1964		
		F	5.8 +48R	6.9 +32R	7.4 +24R	7.8 +19.2R	8 +16R	8.2 +13.7R	8.3 +12R	8.4 +10.6R	8.5 +9.6R											
12"	q_a q_f	1156 1860	1061 1709	1013 1631	983 1583	964 1551	949 1529	939 1511	930 1498	924 1487												
	F	8.8 +47.5R	10.1 +31.6R	10.8 +23.7R	11.2 +18.9R	11.5 +15.8R	11.6 +13.5R	11.8 +11.8R	11.9 +10.5R	12 +9.5R												
18"	q_a q_f	954 1860	782 1258	811 1306	739 1189	691 1112	720 1160	687 1105	660 1063	682 1097												
	F	13.1 +46.7R	14.8 +31R	15.6 +23.2R	16.1 +18.5R	16.5 +15.4R	16.7 +13.2R	16.9 +11.5R	17.1 +10.2R	17.2 +9.2R												
24"	q_a q_f	730 1175	632 1017	586 944	559 900	541 871	528 850	518 834	510 822	504 812												
	F	17 +45.8R	19.1 +30.2R	20.2 +22.5R	20.9 +17.9R	21.3 +14.9R	21.7 +12.7R	21.9 +11.1R	22.1 +9.9R	22.3 +8.9R												

4.5D-12 5.1

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →		4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"			
			q_a	q_f																				
12/4	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F		-10.5 +324.8R		-3.9 +216.6R		-0.6 +162.4R		1.4 +129.9R		2.7 +108.3R		3.6 +92.8R		4.3 +81.2R		4.9 +72.2R		5.3 +65.5R			
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F		-8.3 +324.5R		-1.5 +216.3R		1.8 +162.2R		3.8 +129.8R		5.2 +108.1R		6.2 +92.7R		6.9 +81.1R		7.4 +72.1R		7.9 +64.9R			
		8"	q_a	q_f	568	909	568	909	568	909	558	898	536	864	521	839	510	821	501	807	494	795	494	795
			F		-6.2 +324.2R		0.7 +216R		4.2 +162R		6.3 +129.6R		7.7 +108R		8.7 +92.5R		9.4 +81R		10 +72R		10.4 +64.8R			
		12"	q_a	q_f	568	909	500	804	446	719	414	667	393	633	378	608	367	590	358	576	351	564	351	564
			F		-2.3 +323.3R		5 +215.3R		8.7 +161.3R		10.9 +129R		12.4 +107.5R		13.5 +92.1R		14.3 +80.6R		14.9 +71.6R		15.4 +64.4R			
		18"	q_a	q_f	534	909	404	651	375	603	328	529	298	479	296	477	277	446	262	422	265	426	265	426
			F		2.6 +321.8R		10.8 +213.9R		14.9 +160.2R		17.5 +128R		19.2 +106.5R		20.4 +91.3R		21.4 +79.8R		22.1 +70.9R		22.7 +63.8R			
		24"	q_a	q_f	463	745	356	574	303	488	271	437	250	402	235	378	223	359	214	345	207	334	207	334
			F		6.8 +320.3R		15.9 +212.5R		20.6 +158.8R		23.5 +126.7R		25.5 +105.4R		27 +90.2R		28.1 +78.8R		28.9 +70R		29.6 +63R			
	18 ga	4"	q_a	q_f	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312
			F		-2.1 +155.3R		1.1 +103.5R		2.7 +77.7R		3.7 +62.1R		4.3 +51.8R		4.8 +44.4R		5.1 +38.8R		5.4 +34.5R		5.6 +31.1R			
		6"	q_a	q_f	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312	815	1312
			F		-0.1 +155.1R		3.2 +103.3R		4.8 +77.5R		5.8 +62R		6.5 +51.7R		7 +44.3R		7.3 +38.7R		7.6 +34.4R		7.8 +31R			
		8"	q_a	q_f	815	1312	815	1312	815	1312	815	1312	808	1302	788	1269	772	1243	760	1223	750	1207	750	1207
			F		1.7 +154.7R		5.2 +103.1R		6.9 +77.3R		7.9 +61.8R		8.6 +51.5R		9.1 +44.1R		9.5 +38.6R		9.8 +34.3R		10 +30.9R			
		12"	q_a	q_f	815	1312	725	1167	655	1055	613	987	585	942	565	910	551	886	539	868	530	853	530	853
			F		5 +154R		8.8 +102.4R		10.8 +76.7R		12 +61.3R		12.8 +51.1R		13.3 +43.8R		13.7 +38.3R		14.1 +34R		14.3 +30.6R			
		18"	q_a	q_f	753	1312	576	927	544	875	479	772	437	703	438	705	411	662	390	628	396	637	396	637
			F		9.3 +152.7R		13.8 +101.3R		16.2 +75.7R		17.6 +60.4R		18.6 +50.3R		19.3 +43R		19.8 +37.6R		20.3 +33.4R		20.6 +30.1R			
		24"	q_a	q_f	641	1032	502	808	432	696	390	628	362	583	342	551	328	527	316	509	307	494	307	494
			F		12.9 +151.4R		18.2 +100R		21.1 +74.5R		22.8 +59.4R		24.1 +49.3R		25 +42.1R		25.6 +36.8R		26.2 +32.6R		26.6 +29.3R			
16 ga	4"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F		0.9 +87.9R		2.8 +58.6R		3.7 +43.9R		4.2 +35.1R		4.6 +29.3R		4.9 +25.1R		5.1 +22R		5.2 +19.5R		5.3 +17.6R				
	6"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F		2.6 +87.7R		4.6 +58.4R		5.6 +43.8R		6.2 +35R		6.5 +29.2R		6.8 +25R		7 +21.9R		7.2 +19.5R		7.3 +17.5R				
	8"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F		4.3 +87.4R		6.3 +58.2R		7.4 +43.6R		8 +34.9R		8.4 +29R		8.7 +24.9R		9 +21.8R		9.1 +19.4R		9.3 +17.4R				
	12"	q_a	q_f	996	1603	968	1558	883	1421	832	1339	798	1284	773	1245	755	1216	741	1193	730	1175	730	1175	
		F		7.2 +86.7R		9.6 +57.6R		10.9 +43.1R		11.6 +34.5R		12.1 +28.7R		12.5 +24.6R		12.7 +21.5R		13 +19.1R		13.1 +17.2R				
	18"	q_a	q_f	981	1603	759	1222	726	1169	643	1036	589	948	594	956	559	900	532	856	541	872	541	872	
		F		11 +85.5R		14.1 +56.6R		15.7 +42.2R		16.7 +33.6R		17.3 +28R		17.8 +23.9R		18.2 +20.9R		18.5 +18.5R		18.7 +16.7R				
	24"	q_a	q_f	824	1327	654	1053	569	916	518	834	484	779	460	740	441	711	427	688	416	670	416	670	
		F		14.3 +84.4R		18 +55.4R		20 +41.2R		21.3 +32.7R		22.2 +27.1R		22.9 +23.1R		23.4 +20.1R		23.7 +17.9R		24.1 +16R				
14 ga	4"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F		2.4 +48.2R		3.4 +32.1R		3.9 +24.1R		4.2 +19.3R		4.4 +16R		4.6 +13.8R		4.7 +12R		4.8 +10.7R		4.9 +9.6R				
	6"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F		3.9 +48R		5 +31.9R		5.6 +23.9R		5.9 +19.1R		6.2 +16R		6.3 +13.7R		6.4 +12R		6.5 +10.6R		6.6 +9.6R				
	8"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F		5.3 +47.7R		6.6 +31.7R		7.2 +23.8R		7.6 +19R		7.8 +15.8R		8 +13.6R		8.2 +11.9R		8.3 +10.5R		8.4 +9.5R				
	12"	q_a	q_f	1220	1964	1220	1964	1212	1951	1149	1851	1108	1784	1078	1736	1056	1700	1038	1672	1024	1649	1024	1649	
		F		8 +47.1R		9.5 +31.2R		10.3 +23.3R		10.8 +18.6R		11.1 +15.5R		11.3 +13.3R		11.5 +11.6R		11.7 +10.3R		11.8 +9.3R				
	18"	q_a	q_f	1220	1964	1017	1637	987	1590	880	1416	808	1301	821	1322	775	1247	739	1189	755	1215	755	1215	
		F		11.3 +46.1R		13.4 +30.3R		14.6 +22.5R		15.3 +17.9R		15.7 +14.9R		16.1 +12.7R		16.3 +11.1R		16.5 +9.8R		16.7 +8.8R				
	24"	q_a	q_f	1082	1742	867	1395	762	1228	700	1127	658	1060	628	1012	606	976	589	948	575	925	575	925	
		F		14.2 +45R		16.9 +29.3R		18.4 +21.6R		19.4 +17.1R		20.1 +14.1R		20.6 +12R		20.9 +10.4R		21.2 +9.2R		21.5 +8.3R				

DEEP DECK PANELS

5.1 4.5D-12

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																				
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"			
			q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f			
12/2	20 ga	4"	q_a q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F	-10.4	+325R	-3.8	+216.7R	-0.5	+162.5R	1.4	+130R	2.7	+108.3R	3.7	+92.8R	4.4	+81.2R	4.9	+72.2R	5.3	+65R		
		6"	q_a q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-7.9	+324.8R	-1.3	+216.5R	2	+162.4R	4	+129.9R	5.3	+108.3R	6.3	+92.8R	7	+81.2R	7.5	+72.2R	8	+64.9R		
		8"	q_a q_f	568	909	530	853	502	809	485	781	474	763	466	750	460	740	455	733	451	727		
			F	-5.5	+324.5R	1.2	+216.3R	4.5	+162.2R	6.6	+129.8R	7.9	+108.2R	8.9	+92.7R	9.6	+81.1R	10.1	+72.1R	10.6	+64.9R		
	12"	q_a q_f	437	704	387	623	362	583	347	558	337	542	330	531	324	522	320	515	317	510			
		F	-1	+323.9R	5.9	+215.9R	9.4	+161.9R	11.5	+129.5R	12.9	+107.9R	13.9	+92.5R	14.7	+80.9R	15.3	+71.9R	15.7	+64.7R			
	18"	q_a q_f	366	704	291	469	290	467	261	420	241	388	248	399	235	378	225	362	231	372			
		F	5.2	+322.7R	12.7	+214.9R	16.5	+161.1R	18.8	+128.8R	20.3	+107.3R	21.4	+92R	22.2	+80.5R	22.9	+71.5R	23.4	+64.4R			
	24"	q_a q_f	294	473	244	392	219	352	204	328	194	312	186	300	181	291	177	285	173	279			
		F	10.9	+321.4R	19.1	+213.8R	23.2	+160.1R	25.7	+128R	27.4	+106.6R	28.6	+91.3R	29.5	+79.9R	30.3	+71R	30.8	+63.9R			
	18 ga	4"	q_a q_f	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332		
			F	-1.9	+155.5R	1.2	+103.6R	2.8	+77.7R	3.8	+62.2R	4.4	+51.8R	4.8	+44.4R	5.2	+38.9R	5.4	+34.5R	5.6	+31.1R		
		6"	q_a q_f	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332		
			F	0.2	+155.3R	3.4	+103.5R	5	+77.6R	6	+62.1R	6.6	+51.8R	7.1	+44.4R	7.4	+38.8R	7.7	+34.5R	7.9	+31.1R		
		8"	q_a q_f	827	1332	768	1236	736	1185	717	1154	704	1133	694	1117	687	1106	681	1097	677	1090		
			F	2.2	+155.1R	5.5	+103.4R	7.2	+77.5R	8.2	+62R	8.8	+51.7R	9.3	+44.3R	9.7	+38.7R	9.9	+34.4R	10.2	+31R		
	12"	q_a q_f	631	1017	570	917	539	867	520	838	508	818	499	803	491	790	485	781	480	773			
		F	6.1	+154.5R	9.7	+103R	11.4	+77.2R	12.5	+61.7R	13.2	+51.4R	13.7	+44.1R	14.1	+38.6R	14.4	+34.3R	14.6	+30.9R			
	18"	q_a q_f	520	1017	421	678	427	688	386	622	359	578	372	598	353	568	339	545	349	562			
		F	11.5	+153.5R	15.5	+102.1R	17.5	+76.5R	18.7	+61.2R	19.5	+50.9R	20.1	+43.7R	20.6	+38.2R	20.9	+33.9R	21.2	+30.5R			
	24"	q_a q_f	408	657	347	558	316	508	297	478	285	459	276	444	269	434	264	425	260	419			
		F	16.4	+152.3R	21	+101.2R	23.3	+75.7R	24.7	+60.4R	25.7	+50.3R	26.4	+43.1R	26.9	+37.7R	27.3	+33.5R	27.6	+30.1R			
16 ga	4"	q_a q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	1	+88R	2.8	+58.7R	3.7	+44R	4.3	+35.2R	4.6	+29.3R	4.9	+25.1R	5.1	+22R	5.2	+19.6R	5.4	+17.6R			
	6"	q_a q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	2.9	+87.9R	4.8	+58.6R	5.7	+43.9R	6.3	+35.1R	6.6	+29.3R	6.9	+25.1R	7.1	+22R	7.3	+19.5R	7.4	+17.6R			
	8"	q_a q_f	965	1553	965	1553	965	1553	964	1552	950	1529	940	1513	932	1500	926	1490	921	1483			
		F	4.8	+87.7R	6.7	+58.4R	7.7	+43.8R	8.2	+35R	8.6	+29.2R	8.9	+25R	9.1	+21.9R	9.3	+19.5R	9.4	+17.5R			
12"	q_a q_f	844	1358	769	1239	730	1175	706	1136	690	1110	678	1091	669	1077	662	1066	657	1058				
	F	8.2	+87.2R	10.4	+58.1R	11.4	+43.5R	12.1	+34.8R	12.5	+29R	12.8	+24.8R	13.1	+21.7R	13.2	+19.3R	13.4	+17.4R				
18"	q_a q_f	687	1358	562	905	579	932	526	846	490	789	510	821	485	781	466	751	482	777				
	F	13	+86.3R	15.6	+57.3R	16.9	+42.9R	17.7	+34.3R	18.2	+28.6R	18.6	+24.5R	18.8	+21.4R	19.1	+19R	19.2	+17.1R				
24"	q_a q_f	530	853	458	737	422	679	400	644	386	621	375	605	368	592	362	582	357	575				
	F	17.4	+85.2R	20.5	+56.5R	22	+42.2R	23	+33.7R	23.7	+28R	24.1	+24R	24.5	+20.9R	24.8	+18.6R	25	+16.7R				
14 ga	4"	q_a q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	2.5	+48.3R	3.5	+32.2R	4	+24.1R	4.3	+19.3R	4.5	+16.1R	4.6	+13.8R	4.7	+12.1R	4.8	+10.7R	4.9	+9.6R			
	6"	q_a q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	4.1	+48.1R	5.2	+32.1R	5.7	+24.1R	6	+19.2R	6.3	+16R	6.4	+13.7R	6.5	+12R	6.6	+10.7R	6.7	+9.6R			
	8"	q_a q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	5.8	+48R	6.9	+32R	7.4	+24R	7.8	+19.2R	8	+16R	8.2	+13.7R	8.3	+12R	8.4	+10.6R	8.5	+9.6R			
12"	q_a q_f	1123	1807	1037	1670	993	1599	967	1556	949	1527	936	1507	926	1491	918	1479	912	1469				
	F	8.8	+47.5R	10.1	+31.6R	10.8	+23.7R	11.2	+18.9R	11.5	+15.8R	11.6	+13.5R	11.8	+11.8R	11.9	+10.5R	12	+9.5R				
18"	q_a q_f	934	1807	768	1237	801	1290	731	1177	684	1101	711	1145	679	1093	653	1052	674	1085				
	F	13.1	+46.7R	14.8	+31R	15.6	+23.2R	16.1	+18.5R	16.5	+15.4R	16.7	+13.2R	16.9	+11.5R	17.1	+10.2R	17.2	+9.2R				
24"	q_a q_f	709	1142	618	996	576	928	551	887	534	860	522	840	513	826	506	814	500	805				
	F	17	+45.8R	19.1	+30.2R	20.2	+22.5R	20.9	+17.9R	21.3	+14.9R	21.7	+12.7R	21.9	+11.1R	22.1	+9.9R	22.3	+8.9R				



PNEUTEK

4.5D-12 5.1

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →		4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"			
			q_a	q_f																				
12/4	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F	-10.5 +324.8R	-3.9 +216.6R	-0.6 +162.4R	1.4 +129.9R	2.7 +108.3R	3.6 +92.8R	4.3 +81.2R	4.9 +72.2R	5.3 +65R												
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-8.3 +324.5R	-1.5 +216.3R	1.8 +162.2R	3.8 +129.8R	5.2 +108.1R	6.2 +92.7R	6.9 +81.1R	7.4 +72.1R	7.9 +64.9R												
		8"	q_a	q_f	568	909	568	909	568	909	568	909	545	877	528	851	516	831	507	816	499	803		
			F	-6.2 +324.2R	0.7 +216R	4.2 +162R	6.3 +129.6R	7.7 +108R	8.7 +92.5R	9.4 +81R	10 +72R	10.4 +64.8R												
	12"	q_a	q_f	568	909	517	832	459	739	425	684	402	647	385	620	373	600	363	585	356	573			
		F	-2.3 +323.3R	5 +215.3R	8.7 +161.3R	10.9 +129R	12.4 +107.5R	13.5 +92.1R	14.3 +80.6R	14.9 +71.6R	15.4 +64.4R													
	18"	q_a	q_f	560	909	421	678	387	624	339	545	306	493	303	488	283	456	268	431	270	434			
		F	2.6 +321.8R	10.8 +213.9R	14.9 +160.2R	17.5 +128R	19.2 +106.5R	20.4 +91.3R	21.4 +79.8R	22.1 +70.9R	22.7 +63.8R													
	24"	q_a	q_f	488	786	373	601	316	508	281	453	258	416	242	389	230	370	220	354	212	342			
		F	6.8 +320.3R	15.9 +212.5R	20.6 +158.8R	23.5 +126.7R	25.5 +105.4R	27 +90.2R	28.1 +78.8R	28.9 +70R	29.6 +63R													
	18 ga	4"	q_a	q_f	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332		
			F	-2.1 +155.3R	1.1 +103.5R	2.7 +77.7R	3.7 +62.1R	4.3 +51.8R	4.8 +44.4R	5.1 +38.8R	5.4 +34.5R	5.6 +31.1R												
		6"	q_a	q_f	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332	827	1332		
			F	-0.1 +155.1R	3.2 +103.3R	4.8 +77.5R	5.8 +62R	6.5 +51.7R	7 +44.3R	7.3 +38.7R	7.6 +34.4R	7.8 +31R												
		8"	q_a	q_f	827	1332	827	1332	827	1332	827	1332	811	1305	790	1272	774	1246	762	1226	752	1210		
			F	1.7 +154.7R	5.2 +103.1R	6.9 +77.3R	7.9 +61.8R	8.6 +51.5R	9.1 +44.1R	9.5 +38.6R	9.8 +34.3R	10 +30.9R												
	12"	q_a	q_f	827	1332	729	1174	658	1060	616	991	588	946	567	913	552	889	540	870	531	855			
		F	5 +154R	8.8 +102.4R	10.8 +76.7R	12 +61.3R	12.8 +51.1R	13.3 +43.8R	13.7 +38.3R	14.1 +34R	14.3 +30.6R													
	18"	q_a	q_f	759	1332	580	934	547	880	482	776	439	707	440	708	413	665	392	631	397	639			
		F	9.3 +152.7R	13.8 +101.3R	16.2 +75.7R	17.6 +60.4R	18.6 +50.3R	19.3 +43R	19.8 +37.6R	20.3 +33.4R	20.6 +30.1R													
	24"	q_a	q_f	647	1042	506	815	435	701	393	632	365	587	344	554	329	530	317	511	308	496			
		F	12.9 +151.4R	18.2 +100R	21.1 +74.5R	22.8 +59.4R	24.1 +49.3R	25 +42.1R	25.6 +36.8R	26.2 +32.6R	26.6 +29.3R													
16 ga	4"	q_a	q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	0.9 +87.9R	2.8 +58.6R	3.7 +43.9R	4.2 +35.1R	4.6 +29.3R	4.9 +25.1R	5.1 +22R	5.2 +19.5R	5.3 +17.6R													
	6"	q_a	q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	2.6 +87.7R	4.6 +58.4R	5.6 +43.8R	6.2 +35R	6.5 +29.2R	6.8 +25R	7 +21.9R	7.2 +19.5R	7.3 +17.5R													
	8"	q_a	q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	4.3 +87.4R	6.3 +58.2R	7.4 +43.6R	8 +34.9R	8.4 +29R	8.7 +24.9R	9 +21.8R	9.1 +19.4R	9.3 +17.4R													
12"	q_a	q_f	965	1553	957	1541	875	1409	825	1329	792	1276	769	1238	751	1209	737	1187	726	1170				
	F	7.2 +86.7R	9.6 +57.6R	10.9 +43.1R	11.6 +34.5R	12.1 +28.7R	12.5 +24.6R	12.7 +21.5R	13 +19.1R	13.1 +17.2R														
18"	q_a	q_f	965	1553	748	1205	718	1156	637	1026	583	939	590	949	555	894	528	851	538	866				
	F	11 +85.5R	14.1 +56.6R	15.7 +42.2R	16.7 +33.6R	17.3 +28R	17.8 +23.9R	18.2 +20.9R	18.5 +18.5R	18.7 +16.7R														
24"	q_a	q_f	809	1302	644	1036	561	904	512	824	479	771	455	733	437	704	424	682	413	664				
	F	14.3 +84.4R	18 +55.4R	20 +41.2R	21.3 +32.7R	22.2 +27.1R	22.9 +23.1R	23.4 +20.1R	23.7 +17.9R	24.1 +16R														
14 ga	4"	q_a	q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	2.4 +48.2R	3.4 +32.1R	3.9 +24.1R	4.2 +19.3R	4.4 +16R	4.6 +13.8R	4.7 +12R	4.8 +10.7R	4.9 +9.6R													
	6"	q_a	q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	3.9 +48R	5 +31.9R	5.6 +23.9R	5.9 +19.1R	6.2 +16R	6.3 +13.7R	6.4 +12R	6.5 +10.6R	6.6 +9.6R													
	8"	q_a	q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	5.3 +47.7R	6.6 +31.7R	7.2 +23.8R	7.6 +19R	7.8 +15.8R	8 +13.6R	8.2 +11.9R	8.3 +10.5R	8.4 +9.5R													
12"	q_a	q_f	1130	1820	1130	1820	1130	1820	1130	1820	1093	1759	1065	1714	1044	1680	1026	1653	1013	1630				
	F	8 +47.1R	9.5 +31.2R	10.3 +23.3R	10.8 +18.6R	11.1 +15.5R	11.3 +13.3R	11.5 +11.6R	11.7 +10.3R	11.8 +9.3R														
18"	q_a	q_f	1130	1820	986	1588	964	1553	861	1387	793	1276	808	1301	763	1229	728	1173	745	1200				
	F	11.3 +46.1R	13.4 +30.3R	14.6 +22.5R	15.3 +17.9R	15.7 +14.9R	16.1 +12.7R	16.3 +11.1R	16.5 +9.8R	16.7 +8.8R														
24"	q_a	q_f	1036	1668	836	1346	740	1191	682	1097	643	1035	615	991	595	957	578	931	566	911				
	F	14.2 +45R	16.9 +29.3R	18.4 +21.6R	19.4 +17.1R	20.1 +14.1R	20.6 +12R	20.9 +10.4R	21.2 +9.2R	21.5 +8.3R														

DEEP DECK PANELS

5.1 4.5D-12

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
12/2	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-10.4	+325R	-3.8	+216.7R	-0.5	+162.5R	1.4	+130R	2.7	+108.3R	3.7	+92.8R	4.4	+81.2R	4.9	+72.2R	5.3	+65R	
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-7.9	+324.8R	-1.3	+216.5R	2	+162.4R	4	+129.9R	5.3	+108.3R	6.3	+92.8R	7	+81.2R	7.5	+72.2R	8	+64.9R	
		8"	q_a	q_f	568	909	541	871	513	826	497	799	484	779	475	764	468	753	462	744	458	737
			F	-5.5	+324.5R	1.2	+216.3R	4.5	+162.2R	6.6	+129.8R	7.9	+108.2R	8.9	+92.7R	9.6	+81.1R	10.1	+72.1R	10.6	+64.9R	
	12"	q_a	q_f	453	730	398	640	370	596	353	569	342	551	334	538	328	529	324	521	320	515	
		F	-1	+323.9R	5.9	+215.9R	9.4	+161.9R	11.5	+129.5R	12.9	+107.9R	13.9	+92.5R	14.7	+80.9R	15.3	+71.9R	15.7	+64.7R		
	18"	q_a	q_f	382	730	302	487	298	480	267	430	247	397	252	406	239	384	228	367	234	377	
		F	5.2	+322.7R	12.7	+214.9R	16.5	+161.1R	18.8	+128.8R	20.3	+107.3R	21.4	+92R	22.2	+80.5R	22.9	+71.5R	23.4	+64.4R		
	24"	q_a	q_f	310	499	254	410	227	365	210	338	199	320	191	307	185	298	180	290	177	284	
		F	10.9	+321.4R	19.1	+213.8R	23.2	+160.1R	25.7	+128R	27.4	+106.6R	28.6	+91.3R	29.5	+79.9R	30.3	+71R	30.8	+63.9R		
	18 ga	4"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-1.9	+155.5R	1.2	+103.6R	2.8	+77.7R	3.8	+62.2R	4.4	+51.8R	4.8	+44.4R	5.2	+38.9R	5.4	+34.5R	5.6	+31.1R	
		6"	q_a	q_f	988	1581	988	1581	963	1550	939	1512	923	1487	912	1468	904	1455	897	1444	891	1435
			F	0.2	+155.3R	3.4	+103.5R	5	+77.6R	6	+62.1R	6.6	+51.8R	7.1	+44.4R	7.4	+38.8R	7.7	+34.5R	7.9	+31.1R	
		8"	q_a	q_f	899	1447	819	1319	777	1252	752	1211	735	1183	722	1163	713	1148	706	1137	700	1127
			F	2.2	+155.1R	5.5	+103.4R	7.2	+77.5R	8.2	+62R	8.8	+51.7R	9.3	+44.3R	9.7	+38.7R	9.9	+34.4R	10.2	+31R	
	12"	q_a	q_f	676	1088	599	965	561	903	538	866	523	841	512	824	503	811	497	800	492	792	
		F	6.1	+154.5R	9.7	+103R	11.4	+77.2R	12.5	+61.7R	13.2	+51.4R	13.7	+44.1R	14.1	+38.6R	14.4	+34.3R	14.6	+30.9R		
	18"	q_a	q_f	564	1088	450	725	449	723	404	651	374	602	384	619	364	586	348	561	358	577	
		F	11.5	+153.5R	15.5	+102.1R	17.5	+76.5R	18.7	+61.2R	19.5	+50.9R	20.1	+43.7R	20.6	+38.2R	20.9	+33.9R	21.2	+30.5R		
	24"	q_a	q_f	453	729	376	606	338	544	315	507	300	482	289	465	280	452	274	441	269	433	
		F	16.4	+152.3R	21	+101.2R	23.3	+75.7R	24.7	+60.4R	25.7	+50.3R	26.4	+43.1R	26.9	+37.7R	27.3	+33.5R	27.6	+30.1R		
16 ga	4"	q_a	q_f	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	
		F	1	+88R	2.8	+58.7R	3.7	+44R	4.3	+35.2R	4.6	+29.3R	4.9	+25.1R	5.1	+22R	5.2	+19.6R	5.4	+17.6R		
	6"	q_a	q_f	1261	2031	1261	2031	1261	2031	1261	2031	1261	2030	1247	2008	1237	1992	1229	1979	1223	1969	
		F	2.9	+87.9R	4.8	+58.6R	5.7	+43.9R	6.3	+35.1R	6.6	+29.3R	6.9	+25.1R	7.1	+22R	7.3	+19.5R	7.4	+17.6R		
	8"	q_a	q_f	1204	1938	1107	1782	1057	1702	1027	1653	1006	1620	991	1596	980	1578	972	1564	965	1553	
		F	4.8	+87.7R	6.7	+58.4R	7.7	+43.8R	8.2	+35R	8.6	+29.2R	8.9	+25R	9.1	+21.9R	9.3	+19.5R	9.4	+17.5R		
12"	q_a	q_f	910	1465	816	1313	769	1238	740	1192	722	1162	708	1140	698	1124	690	1111	683	1100		
	F	8.2	+87.2R	10.4	+58.1R	11.4	+43.5R	12.1	+34.8R	12.5	+29R	12.8	+24.8R	13.1	+21.7R	13.2	+19.3R	13.4	+17.4R			
18"	q_a	q_f	753	1465	607	977	612	985	552	889	512	825	529	852	502	808	481	775	496	798		
	F	13	+86.3R	15.6	+57.3R	16.9	+42.9R	17.7	+34.3R	18.2	+28.6R	18.6	+24.5R	18.8	+21.4R	19.1	+19R	19.2	+17.1R			
24"	q_a	q_f	596	960	502	808	455	733	427	687	408	657	394	635	384	619	377	606	370	596		
	F	17.4	+85.2R	20.5	+56.5R	22	+42.2R	23	+33.7R	23.7	+28R	24.1	+24R	24.5	+20.9R	24.8	+18.6R	25	+16.7R			
14 ga	4"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	
		F	2.5	+48.3R	3.5	+32.2R	4	+24.1R	4.3	+19.3R	4.5	+16.1R	4.6	+13.8R	4.7	+12.1R	4.8	+10.7R	4.9	+9.6R		
	6"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	
		F	4.1	+48.1R	5.2	+32.1R	5.7	+24.1R	6	+19.2R	6.3	+16R	6.4	+13.7R	6.5	+12R	6.6	+10.7R	6.7	+9.6R		
	8"	q_a	q_f	1537	2475	1510	2432	1453	2339	1417	2282	1394	2244	1377	2217	1364	2196	1354	2180	1346	2167	
		F	5.8	+48R	6.9	+32R	7.4	+24R	7.8	+19.2R	8	+16R	8.2	+13.7R	8.3	+12R	8.4	+10.6R	8.5	+9.6R		
12"	q_a	q_f	1252	2016	1129	1817	1071	1725	1036	1667	1009	1625	990	1595	976	1572	965	1554	956	1540		
	F	8.8	+47.5R	10.1	+31.6R	10.8	+23.7R	11.2	+18.9R	11.5	+15.8R	11.6	+13.5R	11.8	+11.8R	11.9	+10.5R	12	+9.5R			
18"	q_a	q_f	1027	2016	829	1335	847	1363	767	1235	714	1150	741	1193	704	1134	676	1088	698	1124		
	F	13.1	+46.7R	14.8	+31R	15.6	+23.2R	16.1	+18.5R	16.5	+15.4R	16.7	+13.2R	16.9	+11.5R	17.1	+10.2R	17.2	+9.2R			
24"	q_a	q_f	802	1292	679	1094	622	1001	587	946	564	909	548	882	536	862	526	847	518	835		
	F	17	+45.8R	19.1	+30.2R	20.2	+22.5R	20.9	+17.9R	21.3	+14.9R	21.7	+12.7R	21.9	+11.1R	22.1	+9.9R	22.3	+8.9R			



PNEUTEK

4.5D-12 5.1

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/4	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F	-10.5 +324.8R	-3.9 +216.6R	-0.6 +162.4R	1.4 +129.9R	2.7 +108.3R	3.6 +92.8R	4.3 +81.2R	4.9 +72.2R	5.3 +65R												
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-8.3 +324.5R	-1.5 +216.3R	1.8 +162.2R	3.8 +129.8R	5.2 +108.1R	6.2 +92.7R	6.9 +81.1R	7.4 +72.1R	7.9 +64.9R												
		8"	q_a	q_f	568	909	568	909	568	909	568	909	557	897	539	868	525	846	515	829	506	815		
			F	-6.2 +324.2R	0.7 +216R	4.2 +162R	6.3 +129.6R	7.7 +108R	8.7 +92.5R	9.4 +81R	10 +72R	10.4 +64.8R												
	12"	q_a	q_f	568	909	541	871	477	769	439	707	414	666	396	637	382	615	371	598	363	584			
		F	-2.3 +323.3R	5 +215.3R	8.7 +161.3R	10.9 +129R	12.4 +107.5R	13.5 +92.1R	14.3 +80.6R	14.9 +71.6R	15.4 +64.4R													
	18"	q_a	q_f	568	909	446	717	406	653	353	569	318	512	314	505	292	471	276	444	277	446			
		F	2.6 +321.8R	10.8 +213.9R	14.9 +160.2R	17.5 +128R	19.2 +106.5R	20.4 +91.3R	21.4 +79.8R	22.1 +70.9R	22.7 +63.8R													
	24"	q_a	q_f	525	845	398	640	334	538	296	477	271	436	252	406	239	384	228	367	220	354			
		F	6.8 +320.3R	15.9 +212.5R	20.6 +158.8R	23.5 +126.7R	25.5 +105.4R	27 +90.2R	28.1 +78.8R	28.9 +70R	29.6 +63R													
	18 ga	4"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581		
			F	-2.1 +155.3R	1.1 +103.5R	2.7 +77.7R	3.7 +62.1R	4.3 +51.8R	4.8 +44.4R	5.1 +38.8R	5.4 +34.5R	5.6 +31.1R												
		6"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581		
			F	-0.1 +155.1R	3.2 +103.3R	4.8 +77.5R	5.8 +62R	6.5 +51.7R	7 +44.3R	7.3 +38.7R	7.6 +34.4R	7.8 +31R												
		8"	q_a	q_f	988	1581	988	1581	932	1501	879	1416	844	1359	819	1319	801	1289	786	1265	774	1247		
			F	1.7 +154.7R	5.2 +103.1R	6.9 +77.3R	7.9 +61.8R	8.6 +51.5R	9.1 +44.1R	9.5 +38.6R	9.8 +34.3R	10 +30.9R												
	12"	q_a	q_f	972	1565	797	1283	709	1141	656	1057	621	1000	596	960	578	930	563	906	551	887			
		F	5 +154R	8.8 +102.4R	10.8 +76.7R	12 +61.3R	12.8 +51.1R	13.3 +43.8R	13.7 +38.3R	14.1 +34R	14.3 +30.6R													
	18"	q_a	q_f	860	1565	648	1043	597	962	523	841	473	761	469	755	438	705	414	667	417	672			
		F	9.3 +152.7R	13.8 +101.3R	16.2 +75.7R	17.6 +60.4R	18.6 +50.3R	19.3 +43R	19.8 +37.6R	20.3 +33.4R	20.6 +30.1R													
	24"	q_a	q_f	749	1206	574	923	486	782	433	698	398	641	373	601	354	571	340	547	328	528			
		F	12.9 +151.4R	18.2 +100R	21.1 +74.5R	22.8 +59.4R	24.1 +49.3R	25 +42.1R	25.6 +36.8R	26.2 +32.6R	26.6 +29.3R													
16 ga	4"	q_a	q_f	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031			
		F	0.9 +87.9R	2.8 +58.6R	3.7 +43.9R	4.2 +35.1R	4.6 +29.3R	4.9 +25.1R	5.1 +22R	5.2 +19.5R	5.3 +17.6R													
	6"	q_a	q_f	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031	1261	2031			
		F	2.6 +87.7R	4.6 +58.4R	5.6 +43.8R	6.2 +35R	6.5 +29.2R	6.8 +25R	7 +21.9R	7.2 +19.5R	7.3 +17.5R													
	8"	q_a	q_f	1261	2031	1261	2031	1261	2031	1200	1932	1157	1862	1126	1813	1103	1776	1085	1747	1071	1724			
		F	4.3 +87.4R	6.3 +58.2R	7.4 +43.6R	8 +34.9R	8.4 +29R	8.7 +24.9R	9 +21.8R	9.1 +19.4R	9.3 +17.4R													
12"	q_a	q_f	1261	2031	1059	1705	951	1531	886	1427	843	1357	812	1308	789	1271	771	1242	757	1219				
	F	7.2 +86.7R	9.6 +57.6R	10.9 +43.1R	11.6 +34.5R	12.1 +28.7R	12.5 +24.6R	12.7 +21.5R	13 +19.1R	13.1 +17.2R														
18"	q_a	q_f	1118	2031	850	1368	794	1279	698	1124	634	1021	633	1019	593	955	562	905	569	915				
	F	11 +85.5R	14.1 +56.6R	15.7 +42.2R	16.7 +33.6R	17.3 +28R	17.8 +23.9R	18.2 +20.9R	18.5 +18.5R	18.7 +16.7R														
24"	q_a	q_f	961	1547	745	1200	637	1026	573	922	529	852	499	803	475	766	458	737	443	713				
	F	14.3 +84.4R	18 +55.4R	20 +41.2R	21.3 +32.7R	22.2 +27.1R	22.9 +23.1R	23.4 +20.1R	23.7 +17.9R	24.1 +16R														
14 ga	4"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475			
		F	2.4 +48.2R	3.4 +32.1R	3.9 +24.1R	4.2 +19.3R	4.4 +16R	4.6 +13.8R	4.7 +12R	4.8 +10.7R	4.9 +9.6R													
	6"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475			
		F	3.9 +48R	5 +31.9R	5.6 +23.9R	5.9 +19.1R	6.2 +16R	6.3 +13.7R	6.4 +12R	6.5 +10.6R	6.6 +9.6R													
	8"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1515	2439	1497	2409			
		F	5.3 +47.7R	6.6 +31.7R	7.2 +23.8R	7.6 +19R	7.8 +15.8R	8 +13.6R	8.2 +11.9R	8.3 +10.5R	8.4 +9.5R													
12"	q_a	q_f	1537	2475	1425	2294	1294	2083	1215	1956	1162	1871	1125	1810	1096	1765	1074	1730	1057	1702				
	F	8 +47.1R	9.5 +31.2R	10.3 +23.3R	10.8 +18.6R	11.1 +15.5R	11.3 +13.3R	11.5 +11.6R	11.7 +10.3R	11.8 +9.3R														
18"	q_a	q_f	1471	2475	1125	1812	1069	1721	945	1521	862	1388	868	1397	815	1313	775	1247	787	1267				
	F	11.3 +46.1R	13.4 +30.3R	14.6 +22.5R	15.3 +17.9R	15.7 +14.9R	16.1 +12.7R	16.3 +11.1R	16.5 +9.8R	16.7 +8.8R														
24"	q_a	q_f	1247	2007	975	1570	844	1359	765	1232	712	1147	675	1087	647	1041	625	1006	607	978				
	F	14.2 +45R	16.9 +29.3R	18.4 +21.6R	19.4 +17.1R	20.1 +14.1R	20.6 +12R	20.9 +10.4R	21.2 +9.2R	21.5 +8.3R														

DEEP DECK PANELS

5.1 4.5D-12

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUEK



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
12/2	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-10.4	+325R	-3.8	+216.7R	-0.5	+162.5R	1.4	+130R	2.7	+108.3R	3.7	+92.8R	4.4	+81.2R	4.9	+72.2R	5.3	+65R	
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-7.9	+324.8R	-1.3	+216.5R	2	+162.4R	4	+129.9R	5.3	+108.3R	6.3	+92.8R	7	+81.2R	7.5	+72.2R	8	+64.9R	
		8"	q_a	q_f	568	909	544	876	516	830	498	802	486	783	477	768	470	756	464	747	460	740
			F	-5.5	+324.5R	1.2	+216.3R	4.5	+162.2R	6.6	+129.8R	7.9	+108.2R	8.9	+92.7R	9.6	+81.1R	10.1	+72.1R	10.6	+64.9R	
	12"	q_a	q_f	458	737	401	645	372	599	355	572	344	553	336	540	329	530	325	523	321	517	
		F	-1	+323.9R	5.9	+215.9R	9.4	+161.9R	11.5	+129.5R	12.9	+107.9R	13.9	+92.5R	14.7	+80.9R	15.3	+71.9R	15.7	+64.7R		
	18"	q_a	q_f	386	737	305	491	301	484	269	433	248	399	254	408	240	386	229	369	235	378	
		F	5.2	+322.7R	12.7	+214.9R	16.5	+161.1R	18.8	+128.8R	20.3	+107.3R	21.4	+92R	22.2	+80.5R	22.9	+71.5R	23.4	+64.4R		
	24"	q_a	q_f	314	506	257	414	229	368	212	341	200	323	192	309	186	300	181	292	178	286	
		F	10.9	+321.4R	19.1	+213.8R	23.2	+160.1R	25.7	+128R	27.4	+106.6R	28.6	+91.3R	29.5	+79.9R	30.3	+71R	30.8	+63.9R		
	18 ga	4"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-1.9	+155.5R	1.2	+103.6R	2.8	+77.7R	3.8	+62.2R	4.4	+51.8R	4.8	+44.4R	5.2	+38.9R	5.4	+34.5R	5.6	+31.1R	
		6"	q_a	q_f	988	1581	988	1581	973	1567	948	1527	932	1500	920	1481	911	1466	904	1455	898	1446
			F	0.2	+155.3R	3.4	+103.5R	5	+77.6R	6	+62.1R	6.6	+51.8R	7.1	+44.4R	7.4	+38.8R	7.7	+34.5R	7.9	+31.1R	
		8"	q_a	q_f	908	1463	829	1334	786	1265	759	1222	741	1193	728	1172	718	1156	711	1144	704	1134
			F	2.2	+155.1R	5.5	+103.4R	7.2	+77.5R	8.2	+62R	8.8	+51.7R	9.3	+44.3R	9.7	+38.7R	9.9	+34.4R	10.2	+31R	
	12"	q_a	q_f	685	1104	606	975	566	911	542	872	526	847	514	828	506	815	499	804	494	795	
		F	6.1	+154.5R	9.7	+103R	11.4	+77.2R	12.5	+61.7R	13.2	+51.4R	13.7	+44.1R	14.1	+38.6R	14.4	+34.3R	14.6	+30.9R		
	18"	q_a	q_f	574	1104	457	736	454	731	408	657	377	607	387	623	367	590	351	564	360	580	
		F	11.5	+153.5R	15.5	+102.1R	17.5	+76.5R	18.7	+61.2R	19.5	+50.9R	20.1	+43.7R	20.6	+38.2R	20.9	+33.9R	21.2	+30.5R		
	24"	q_a	q_f	462	744	383	616	343	552	319	513	303	488	291	469	283	455	276	445	271	436	
		F	16.4	+152.3R	21	+101.2R	23.3	+75.7R	24.7	+60.4R	25.7	+50.3R	26.4	+43.1R	26.9	+37.7R	27.3	+33.5R	27.6	+30.1R		
16 ga	4"	q_a	q_f	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	
		F	1	+88R	2.8	+58.7R	3.7	+44R	4.3	+35.2R	4.6	+29.3R	4.9	+25.1R	5.1	+22R	5.2	+19.6R	5.4	+17.6R		
	6"	q_a	q_f	1395	2246	1394	2245	1343	2162	1311	2111	1290	2076	1274	2052	1263	2033	1254	2019	1247	2007	
		F	2.9	+87.9R	4.8	+58.6R	5.7	+43.9R	6.3	+35.1R	6.6	+29.3R	6.9	+25.1R	7.1	+22R	7.3	+19.5R	7.4	+17.6R		
	8"	q_a	q_f	1252	2015	1141	1837	1084	1746	1050	1690	1027	1653	1010	1626	998	1606	988	1590	980	1578	
		F	4.8	+87.7R	6.7	+58.4R	7.7	+43.8R	8.2	+35R	8.6	+29.2R	8.9	+25R	9.1	+21.9R	9.3	+19.5R	9.4	+17.5R		
12"	q_a	q_f	940	1513	836	1346	784	1262	752	1211	732	1178	717	1154	706	1136	697	1122	690	1111		
	F	8.2	+87.2R	10.4	+58.1R	11.4	+43.5R	12.1	+34.8R	12.5	+29R	12.8	+24.8R	13.1	+21.7R	13.2	+19.3R	13.4	+17.4R			
18"	q_a	q_f	783	1513	627	1009	627	1009	564	908	522	841	537	865	509	820	488	785	502	808		
	F	13	+86.3R	15.6	+57.3R	16.9	+42.9R	17.7	+34.3R	18.2	+28.6R	18.6	+24.5R	18.8	+21.4R	19.1	+19R	19.2	+17.1R			
24"	q_a	q_f	626	1008	522	841	470	757	439	706	418	673	403	649	392	631	383	617	376	606		
	F	17.4	+85.2R	20.5	+56.5R	22	+42.2R	23	+33.7R	23.7	+28R	24.1	+24R	24.5	+20.9R	24.8	+18.6R	25	+16.7R			
14 ga	4"	q_a	q_f	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	
		F	2.5	+48.3R	3.5	+32.2R	4	+24.1R	4.3	+19.3R	4.5	+16.1R	4.6	+13.8R	4.7	+12.1R	4.8	+10.7R	4.9	+9.6R		
	6"	q_a	q_f	1865	3003	1865	3003	1865	3003	1848	2975	1820	2930	1800	2898	1785	2874	1773	2855	1764	2840	
		F	4.1	+48.1R	5.2	+32.1R	5.7	+24.1R	6	+19.2R	6.3	+16R	6.4	+13.7R	6.5	+12R	6.6	+10.7R	6.7	+9.6R		
	8"	q_a	q_f	1746	2812	1601	2578	1527	2458	1482	2385	1451	2336	1429	2301	1413	2275	1400	2254	1390	2237	
		F	5.8	+48R	6.9	+32R	7.4	+24R	7.8	+19.2R	8	+16R	8.2	+13.7R	8.3	+12R	8.4	+10.6R	8.5	+9.6R		
12"	q_a	q_f	1327	2137	1178	1896	1108	1784	1066	1717	1039	1672	1019	1640	1004	1616	992	1597	983	1582		
	F	8.8	+47.5R	10.1	+31.6R	10.8	+23.7R	11.2	+18.9R	11.5	+15.8R	11.6	+13.5R	11.8	+11.8R	11.9	+10.5R	12	+9.5R			
18"	q_a	q_f	1103	2137	878	1414	883	1422	797	1283	739	1189	762	1226	723	1164	692	1115	713	1148		
	F	13.1	+46.7R	14.8	+31R	15.6	+23.2R	16.1	+18.5R	16.5	+15.4R	16.7	+13.2R	16.9	+11.5R	17.1	+10.2R	17.2	+9.2R			
24"	q_a	q_f	878	1413	728	1172	659	1060	617	993	589	948	569	916	554	892	542	873	533	858		
	F	17	+45.8R	19.1	+30.2R	20.2	+22.5R	20.9	+17.9R	21.3	+14.9R	21.7	+12.7R	21.9	+11.1R	22.1	+9.9R	22.3	+8.9R			

4.5D-12 5.1

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

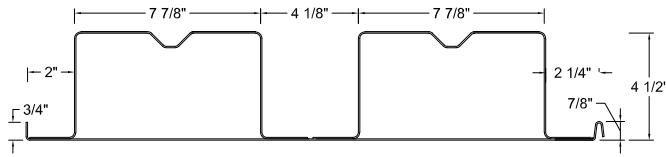
Diaphragm Shear in pounds per linear foot (plf)



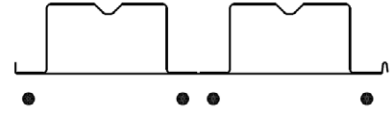
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/4	20 ga	4"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909		
			F	-10.5 +324.8R	-3.9 +216.6R	-0.6 +162.4R	1.4 +129.9R	2.7 +108.3R	3.6 +92.8R	4.3 +81.2R	4.9 +72.2R	5.3 +65R												
		6"	q_a	q_f	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909	568	909
			F	-8.3 +324.5R	-1.5 +216.3R	1.8 +162.2R	3.8 +129.8R	5.2 +108.1R	6.2 +92.7R	6.9 +81.1R	7.4 +72.1R	7.9 +64.9R												
		8"	q_a	q_f	568	909	568	909	568	909	568	909	561	902	542	872	528	850	517	832	508	818		
			F	-6.2 +324.2R	0.7 +216R	4.2 +162R	6.3 +129.6R	7.7 +108R	8.7 +92.5R	9.4 +81R	10 +72R	10.4 +64.8R												
	12"	q_a	q_f	568	909	548	882	482	777	443	714	417	672	399	642	385	619	374	602	365	588			
		F	-2.3 +323.3R	5 +215.3R	8.7 +161.3R	10.9 +129R	12.4 +107.5R	13.5 +92.1R	14.3 +80.6R	14.9 +71.6R	15.4 +64.4R													
	18"	q_a	q_f	568	909	452	728	411	661	357	575	322	518	317	510	295	475	278	448	279	449			
		F	2.6 +321.8R	10.8 +213.9R	14.9 +160.2R	17.5 +128R	19.2 +106.5R	20.4 +91.3R	21.4 +79.8R	22.1 +70.9R	22.7 +63.8R													
	24"	q_a	q_f	535	861	404	651	339	546	300	483	274	441	255	411	241	388	230	371	222	357			
		F	6.8 +320.3R	15.9 +212.5R	20.6 +158.8R	23.5 +126.7R	25.5 +105.4R	27 +90.2R	28.1 +78.8R	28.9 +70R	29.6 +63R													
	18 ga	4"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-2.1 +155.3R	1.1 +103.5R	2.7 +77.7R	3.7 +62.1R	4.3 +51.8R	4.8 +44.4R	5.1 +38.8R	5.4 +34.5R	5.6 +31.1R												
		6"	q_a	q_f	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581	988	1581
			F	-0.1 +155.1R	3.2 +103.3R	4.8 +77.5R	5.8 +62R	6.5 +51.7R	7 +44.3R	7.3 +38.7R	7.6 +34.4R	7.8 +31R												
		8"	q_a	q_f	988	1581	988	1581	943	1518	888	1430	852	1371	826	1329	806	1298	791	1273	779	1254		
			F	1.7 +154.7R	5.2 +103.1R	6.9 +77.3R	7.9 +61.8R	8.6 +51.5R	9.1 +44.1R	9.5 +38.6R	9.8 +34.3R	10 +30.9R												
	12"	q_a	q_f	988	1581	811	1306	720	1159	665	1071	629	1012	603	970	583	939	568	914	556	895			
		F	5 +154R	8.8 +102.4R	10.8 +76.7R	12 +61.3R	12.8 +51.1R	13.3 +43.8R	13.7 +38.3R	14.1 +34R	14.3 +30.6R													
	18"	q_a	q_f	883	1581	663	1067	609	980	531	856	480	773	475	765	444	714	419	675	422	679			
		F	9.3 +152.7R	13.8 +101.3R	16.2 +75.7R	17.6 +60.4R	18.6 +50.3R	19.3 +43R	19.8 +37.6R	20.3 +33.4R	20.6 +30.1R													
	24"	q_a	q_f	771	1241	588	947	497	800	442	712	406	653	380	611	360	580	345	555	333	536			
		F	12.9 +151.4R	18.2 +100R	21.1 +74.5R	22.8 +59.4R	24.1 +49.3R	25 +42.1R	25.6 +36.8R	26.2 +32.6R	26.6 +29.3R													
16 ga	4"	q_a	q_f	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	
		F	0.9 +87.9R	2.8 +58.6R	3.7 +43.9R	4.2 +35.1R	4.6 +29.3R	4.9 +25.1R	5.1 +22R	5.2 +19.5R	5.3 +17.6R													
	6"	q_a	q_f	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1395	2246	1387	2233			
		F	2.6 +87.7R	4.6 +58.4R	5.6 +43.8R	6.2 +35R	6.5 +29.2R	6.8 +25R	7 +21.9R	7.2 +19.5R	7.3 +17.5R													
	8"	q_a	q_f	1395	2246	1395	2246	1299	2091	1227	1976	1180	1899	1146	1844	1120	1803	1100	1771	1084	1746			
		F	4.3 +87.4R	6.3 +58.2R	7.4 +43.6R	8 +34.9R	8.4 +29R	8.7 +24.9R	9 +21.8R	9.1 +19.4R	9.3 +17.4R													
12"	q_a	q_f	1343	2163	1105	1778	985	1586	914	1471	866	1394	832	1339	806	1298	786	1266	771	1241				
	F	7.2 +86.7R	9.6 +57.6R	10.9 +43.1R	11.6 +34.5R	12.1 +28.7R	12.5 +24.6R	12.7 +21.5R	13 +19.1R	13.1 +17.2R														
18"	q_a	q_f	1186	2163	895	1442	828	1334	725	1168	657	1058	653	1051	610	983	577	929	582	938				
	F	11 +85.5R	14.1 +56.6R	15.7 +42.2R	16.7 +33.6R	17.3 +28R	17.8 +23.9R	18.2 +20.9R	18.5 +18.5R	18.7 +16.7R														
24"	q_a	q_f	1029	1657	791	1273	672	1081	600	966	552	889	518	834	493	793	473	761	457	736				
	F	14.3 +84.4R	18 +55.4R	20 +41.2R	21.3 +32.7R	22.2 +27.1R	22.9 +23.1R	23.4 +20.1R	23.7 +17.9R	24.1 +16R														
14 ga	4"	q_a	q_f	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	
		F	2.4 +48.2R	3.4 +32.1R	3.9 +24.1R	4.2 +19.3R	4.4 +16R	4.6 +13.8R	4.7 +12R	4.8 +10.7R	4.9 +9.6R													
	6"	q_a	q_f	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	1865	3003	
		F	3.9 +48R	5 +31.9R	5.6 +23.9R	5.9 +19.1R	6.2 +16R	6.3 +13.7R	6.4 +12R	6.5 +10.6R	6.6 +9.6R													
	8"	q_a	q_f	1865	3003	1865	3003	1827	2942	1732	2788	1668	2685	1622	2612	1588	2557	1561	2514	1540	2480			
		F	5.3 +47.7R	6.6 +31.7R	7.2 +23.8R	7.6 +19R	7.8 +15.8R	8 +13.6R	8.2 +11.9R	8.3 +10.5R	8.4 +9.5R													
12"	q_a	q_f	1865	3003	1537	2475	1378	2218	1282	2064	1218	1961	1173	1888	1138	1833	1112	1790	1091	1756				
	F	8 +47.1R	9.5 +31.2R	10.3 +23.3R	10.8 +18.6R	11.1 +15.5R	11.3 +13.3R	11.5 +11.6R	11.7 +10.3R	11.8 +9.3R														
18"	q_a	q_f	1642	3003	1237	1992	1153	1856	1012	1630	918	1479	916	1474	857	1380	812	1308	821	1322				
	F	11.3 +46.1R	13.4 +30.3R	14.6 +22.5R	15.3 +17.9R	15.7 +14.9R	16.1 +12.7R	16.3 +11.1R	16.5 +9.8R	16.7 +8.8R														
24"	q_a	q_f	1417	2281	1088	1751	928	1494	832	1340	769	1237	723	1164	689	1109	662	1066	641	1032				
	F	14.2 +45R	16.9 +29.3R	18.4 +21.6R	19.4 +17.1R	20.1 +14.1R	20.6 +12R	20.9 +10.4R	21.2 +9.2R	21.5 +8.3R														

5.2 4.5DF-24

Deep Deck



24/4 PATTERN



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w psf	t in	F _y ksi	F _u ksi	A _g in ² /ft	I _g in ⁴ /ft	y _b in	y _t in	S _g in ³ /ft	r in
20/20	4.20	0.0359/0.036	40.00	55.00	1.235	4.515	1.706	2.871	1.573	0.956
20/18	4.75	0.035/0.047	40.00	55.00	1.396	4.890	1.528	3.055	1.601	0.936
20/16	5.27	0.035/0.059	40.00	55.00	1.549	5.175	1.394	3.194	1.620	0.914
18/20	5.03	0.047/0.035	40.00	55.00	1.480	5.535	1.882	2.701	2.049	0.967
18/18	5.97	0.047/0.047	40.00	55.00	1.631	5.970	1.724	2.864	2.084	0.957
18/16	6.10	0.047/0.059	40.00	55.00	1.794	6.370	1.583	3.011	2.116	0.942
16/20	5.87	0.059/0.035	40.00	55.00	1.728	6.495	2.009	2.580	2.517	0.969
16/18	6.37	0.059/0.047	40.00	55.00	1.873	7.020	1.874	2.733	2.569	0.968
16/16	6.94	0.059/0.059	40.00	55.00	2.042	7.525	1.740	2.880	2.613	0.960

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								I _d = (2I _e +I _g)/3	
A _e ⁺ in ² /ft	S _e ⁺ in ³ /ft	y _b in	S _e ⁻ in ³ /ft	y _b in	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	I ⁺ in ⁴ /ft	I ⁻ in ⁴ /ft	
20/20	0.898	1.316	3.025	1.375	2.335	3.980	3.210	4.158	3.645
20/18	1.029	1.338	3.203	1.496	2.523	4.285	3.775	4.487	4.147
20/16	1.176	1.306	3.369	1.500	2.844	4.400	4.265	4.658	4.568
18/20	1.141	1.900	2.771	1.653	2.433	5.265	4.020	5.355	4.525
18/18	1.261	1.936	2.932	1.943	2.367	5.675	4.600	5.773	5.057
18/16	1.403	1.974	3.071	2.005	2.579	6.060	5.170	6.163	5.570
16/20	1.728	2.517	2.581	1.961	2.484	6.495	4.870	6.495	5.412
16/18	1.506	2.569	2.733	2.355	2.323	7.020	5.470	7.020	5.987
16/16	2.042	2.613	2.880	2.476	2.484	7.525	6.150	7.525	6.608

Reactions and supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (P _n /Ω) (lbs/ft width)				LRFD (ϕP _n) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	370	458	581	738	567	700	889	1130
	Interior	630	754	929	1151	938	1122	1381	1712
18	End	646	789	991	1276	988	1207	1516	1952
	Interior	1104	1304	1587	1986	1642	1939	2360	2955
16	End	994	1203	1497	1914	1521	1840	2291	2928
	Interior	1706	1996	2406	2985	2538	2969	3578	4440
14	End	1535	1838	2267	2874	2348	2812	3469	4397
	Interior	2646	3066	3659	4499	3936	4560	5443	6692

Constants

h = 4"

r = 0.25"

θ = 90°

4.5DF-24 5.2

Deep Deck

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	210	146	107	82	65	53	43	36	31	27	23
		Φf_b	333	231	170	130	103	83	69	58	49	43	37
		L/360	182	105	66	44	31	23	17	13	10	8	7
		L/240	-	-	99	67	47	34	26	20	16	12	10
		L/180	-	-	-	-	62	45	34	26	21	17	13
	L/120	-	-	-	-	-	-	-	-	31	25	20	
	DS	f_b/Ω	219	152	112	86	68	55	45	38	32	28	24
		Φf_b	348	242	178	136	107	87	72	60	52	44	39
		L/360	-	-	-	-	66	48	36	28	22	17	14
		L/240	-	-	-	-	-	-	-	-	-	26	21
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	274	191	140	107	85	69	57	48	41	35	30
		Φf_b	435	302	222	170	134	109	90	76	64	56	48
		L/360	-	-	128	86	60	44	33	25	20	16	13
L/240		-	-	-	-	-	66	50	38	30	24	20	
L/180		-	-	-	-	-	-	-	-	40	32	26	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
20/18	SS	f_b/Ω	214	148	109	83	66	53	44	37	32	27	24
		Φf_b	339	235	173	132	105	85	70	59	50	43	38
		L/360	196	113	71	48	34	25	18	14	11	9	7
		L/240	-	-	107	72	50	37	28	21	17	13	11
		L/180	-	-	-	-	-	49	37	28	22	18	15
	L/120	-	-	-	-	-	-	-	-	-	27	22	
	DS	f_b/Ω	239	166	122	93	74	60	49	41	35	30	27
		Φf_b	379	263	193	148	117	95	78	66	56	48	42
		L/360	-	-	-	-	-	55	41	32	25	20	16
		L/240	-	-	-	-	-	-	-	-	-	30	24
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	299	207	152	117	92	75	62	52	44	38	33
		Φf_b	474	329	242	185	146	118	98	82	70	60	53
		L/360	-	-	146	98	69	50	38	29	23	18	15
L/240		-	-	-	-	-	-	56	43	34	27	22	
L/180		-	-	-	-	-	-	-	-	-	36	30	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
20/16	SS	f_b/Ω	209	145	106	81	64	52	43	36	31	27	23
		Φf_b	331	230	169	129	102	83	68	57	49	42	37
		L/360	204	118	74	50	35	25	19	15	12	9	8
		L/240	-	-	-	75	52	38	29	22	17	14	11
		L/180	-	-	-	-	-	51	38	29	23	19	15
	L/120	-	-	-	-	-	-	-	-	-	-	-	23
	DS	f_b/Ω	239	166	122	94	74	60	49	42	35	31	27
		Φf_b	380	264	194	148	117	95	78	66	56	48	42
		L/360	-	-	-	-	-	-	45	35	27	22	18
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	299	208	153	117	92	75	62	52	44	38	33
		Φf_b	475	330	242	185	147	119	98	82	70	61	53
		L/360	-	-	-	108	76	55	41	32	25	20	16
L/240		-	-	-	-	-	-	-	48	38	30	24	
L/180		-	-	-	-	-	-	-	-	-	-	33	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	

DEEP DECK PANELS

4.5DF-24 5.2

Deep Deck

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

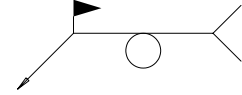
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	402	279	205	157	124	100	83	70	59	51	45
		Φf_b	638	443	325	249	197	159	132	111	94	81	71
		L/360	284	164	103	69	49	35	27	21	16	13	11
		L/240	-	246	155	104	73	53	40	31	24	19	16
		L/180	-	-	-	139	97	71	53	41	32	26	21
	L/120	-	-	-	-	-	-	80	62	48	39	32	
	DS	f_b/Ω	313	217	160	122	97	78	65	54	46	40	35
		Φf_b	497	345	253	194	153	124	103	86	73	63	55
		L/360	-	-	-	-	-	71	54	41	32	26	21
		L/240	-	-	-	-	-	-	-	-	-	39	32
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	391	272	200	153	121	98	81	68	58	50	43
		Φf_b	621	431	317	243	192	155	128	108	92	79	69
		L/360	-	-	190	127	89	65	49	38	30	24	19
L/240		-	-	-	-	-	-	74	57	45	36	29	
L/180		-	-	-	-	-	-	-	-	-	48	39	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
16/18	SS	f_b/Ω	410	285	209	160	127	103	85	71	61	52	46
		Φf_b	651	452	332	254	201	163	134	113	96	83	72
		L/360	307	178	112	75	53	38	29	22	17	14	11
		L/240	-	266	168	112	79	58	43	33	26	21	17
		L/180	-	-	-	150	105	77	58	44	35	28	23
	L/120	-	-	-	-	-	-	-	67	52	42	34	
	DS	f_b/Ω	376	261	192	147	116	94	78	65	56	48	42
		Φf_b	597	414	304	233	184	149	123	104	88	76	66
		L/360	-	-	-	-	108	79	59	46	36	29	23
		L/240	-	-	-	-	-	-	-	-	54	43	35
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	470	326	240	184	145	118	97	82	70	60	52
		Φf_b	746	518	380	291	230	186	154	129	110	95	83
		L/360	-	-	210	141	99	72	54	42	33	26	21
L/240		-	-	-	-	-	108	81	63	49	39	32	
L/180		-	-	-	-	-	-	-	-	66	53	43	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
16/16	SS	f_b/Ω	417	290	213	163	129	104	86	72	62	53	46
		Φf_b	662	460	338	259	204	165	137	115	98	84	74
		L/360	329	190	120	80	56	41	31	24	19	15	12
		L/240	-	285	180	120	85	62	46	36	28	22	18
		L/180	-	-	-	161	113	82	62	48	37	30	24
	L/120	-	-	-	-	-	-	-	71	56	45	37	
	DS	f_b/Ω	395	275	202	154	122	99	82	69	58	50	44
		Φf_b	627	436	320	245	194	157	130	109	93	80	70
		L/360	-	-	-	-	119	87	65	50	40	32	26
		L/240	-	-	-	-	-	-	-	-	-	48	39
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	494	343	252	193	153	124	102	86	73	63	55
		Φf_b	784	544	400	306	242	196	162	136	116	100	87
		L/360	-	-	232	156	109	80	60	46	36	29	24
L/240		-	-	-	-	-	120	90	69	54	44	35	
L/180		-	-	-	-	-	-	-	-	73	58	47	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	

DEEP DECK PANELS

5.2 4.5DF-24

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
24/4	20 ga	4"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282		
			F	-0.5 +55.9R	0.6 +37.3R	1.2 +28R	1.5 +22.4R	1.7 +18.6R	1.9 +16R	2 +14R	2.1 +12.4R	2.2 +11.2R												
		6"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	-0.1 +55.9R	1 +37.2R	1.6 +27.9R	2 +22.3R	2.2 +18.6R	2.4 +16R	2.5 +14R	2.6 +12.4R	2.7 +11.2R												
		8"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	0.3 +55.8R	1.4 +37.2R	2 +27.9R	2.4 +22.3R	2.6 +18.6R	2.8 +15.9R	3 +13.9R	3.1 +12.4R	3.1 +11.1R												
	12"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	
		F	0.9 +55.6R	2.2 +37R	2.9 +27.8R	3.2 +22.2R	3.5 +18.5R	3.7 +15.8R	3.8 +13.9R	3.9 +12.3R	4 +11.1R													
	18"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	
		F	1.8 +55.4R	3.2 +36.8R	4 +27.5R	4.4 +22R	4.7 +18.3R	4.9 +15.7R	5.1 +13.7R	5.2 +12.2R	5.3 +11R													
	24"	q_a	q_f	777	1282	777	1282	777	1282	768	1267	731	1206	704	1161	683	1128	667	1101	654	1080			
		F	2.5 +55.1R	4.1 +36.5R	5 +27.3R	5.5 +21.8R	5.9 +18.1R	6.1 +15.5R	6.3 +13.5R	6.5 +12R	6.6 +10.8R													
	18 ga	4"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	0.2 +37.6R	0.9 +25.1R	1.3 +18.8R	1.5 +15.1R	1.7 +12.5R	1.8 +10.8R	1.9 +9.4R	2 +8.4R	2 +7.5R												
		6"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	0.5 +37.6R	1.3 +25.1R	1.7 +18.8R	1.9 +15R	2.1 +12.5R	2.2 +10.7R	2.3 +9.4R	2.4 +8.3R	2.4 +7.5R												
		8"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	0.8 +37.5R	1.7 +25R	2.1 +18.7R	2.3 +15R	2.5 +12.5R	2.6 +10.7R	2.7 +9.4R	2.8 +8.3R	2.8 +7.5R												
12"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157		
	F	1.4 +37.4R	2.3 +24.9R	2.8 +18.6R	3 +14.9R	3.2 +12.4R	3.4 +10.6R	3.5 +9.3R	3.5 +8.3R	3.6 +7.4R														
18"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1305	2154	1253	2068	1275	2104				
	F	2.2 +37.1R	3.2 +24.7R	3.7 +18.5R	4.1 +14.7R	4.3 +12.3R	4.4 +10.5R	4.5 +9.2R	4.6 +8.2R	4.7 +7.3R														
24"	q_a	q_f	1307	2157	1307	2157	1296	2139	1203	1985	1139	1879	1092	1802	1056	1743	1028	1697	1006	1660				
	F	2.8 +36.9R	4 +24.4R	4.6 +18.2R	5 +14.5R	5.2 +12.1R	5.4 +10.3R	5.6 +9R	5.7 +8R	5.8 +7.2R														
16 ga	4"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	0.5 +26.7R	1.1 +17.8R	1.3 +13.4R	1.5 +10.7R	1.6 +8.9R	1.7 +7.6R	1.8 +6.7R	1.8 +5.9R	1.8 +5.3R													
	6"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	0.8 +26.7R	1.4 +17.8R	1.7 +13.3R	1.9 +10.7R	2 +8.9R	2.1 +7.6R	2.1 +6.7R	2.2 +5.9R	2.2 +5.3R													
	8"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	1.1 +26.6R	1.7 +17.7R	2 +13.3R	2.2 +10.6R	2.3 +8.9R	2.4 +7.6R	2.5 +6.6R	2.5 +5.9R	2.6 +5.3R													
12"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670		
	F	1.6 +26.5R	2.3 +17.6R	2.6 +13.2R	2.8 +10.6R	3 +8.8R	3.1 +7.5R	3.2 +6.6R	3.2 +5.9R	3.3 +5.3R														
18"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670		
	F	2.3 +26.3R	3.1 +17.4R	3.5 +13R	3.7 +10.4R	3.9 +8.7R	4 +7.4R	4.1 +6.5R	4.2 +5.8R	4.3 +5.2R														
24"	q_a	q_f	1618	2670	1618	2670	1618	2670	1564	2581	1487	2453	1430	2359	1387	2288	1353	2232	1326	2187				
	F	2.9 +26.1R	3.8 +17.2R	4.3 +12.8R	4.6 +10.2R	4.8 +8.5R	4.9 +7.3R	5.1 +6.3R	5.1 +5.6R	5.2 +5.1R														

4.5DF-12 24/4

Support Attachment: 0.5" Effective Dia. Arc Spot Weld

Side Seam Attachment: Top Seam Side-Lap Weld

4.5DF-24 5.2

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f
24/4	20 ga	4"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	1.8 +132R		4.8 +87.9R		6.2 +65.9R		7.1 +52.7R		7.7 +43.9R		8.1 +37.6R		8.5 +32.9R		8.7 +29.3R		8.9 +26.3R		
		6"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	3.9 +131.4R		7.1 +87.4R		8.7 +65.5R		9.7 +52.3R		10.4 +43.6R		10.9 +37.3R		11.2 +32.7R		11.5 +29R		11.7 +26.1R		
		8"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	5.6 +130.8R		9.2 +86.9R		11 +65R		12.1 +51.9R		12.9 +43.2R		13.5 +37R		13.9 +32.3R		14.2 +28.7R		14.5 +25.8R		
		12"	q_a	q_f	390	629	390	629	390	629	390	629	374	602	360	580	350	564	342	551	336	540
			F	8.5 +129.7R		12.8 +85.7R		15.1 +63.9R		16.6 +50.9R		17.6 +42.2R		18.3 +36.1R		18.9 +31.5R		19.3 +27.9R		19.7 +25.1R		
		18"	q_a	q_f	390	629	390	629	364	585	323	520	295	474	292	470	274	441	260	419	261	421
			F	11.7 +128.3R		17.1 +84R		20.2 +62.1R		22.2 +49.1R		23.7 +40.6R		24.8 +34.5R		25.6 +30R		26.3 +26.5R		26.8 +23.7R		
		24"	q_a	q_f	390	629	353	569	304	490	273	440	252	406	237	382	225	363	216	348	209	337
			F	14 +127.1R		20.4 +82.5R		24.3 +60.5R		27 +47.4R		28.9 +38.8R		30.4 +32.8R		31.6 +28.3R		32.5 +24.9R		33.3 +22.1R		
	18 ga	4"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	3 +88.7R		5.1 +59.1R		6.1 +44.3R		6.7 +35.4R		7.1 +29.5R		7.4 +25.3R		7.6 +22.1R		7.8 +19.7R		7.9 +17.7R		
		6"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	4.8 +88.3R		7.1 +58.7R		8.2 +43.9R		8.9 +35.1R		9.4 +29.2R		9.8 +25R		10 +21.9R		10.2 +19.5R		10.4 +17.5R		
		8"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	6.3 +87.8R		8.9 +58.2R		10.2 +43.5R		11 +34.7R		11.6 +28.9R		12 +24.7R		12.3 +21.6R		12.5 +19.2R		12.7 +17.3R		
		12"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	519	835	508	819	500	805
			F	8.8 +86.8R		12 +57.2R		13.7 +42.6R		14.8 +33.8R		15.6 +28.1R		16.2 +23.9R		16.6 +20.9R		16.9 +18.5R		17.2 +16.6R		
		18"	q_a	q_f	524	844	524	844	524	844	469	755	430	693	429	691	405	651	385	620	389	626
			F	11.5 +85.5R		15.7 +55.8R		18.1 +41.1R		19.7 +32.3R		20.9 +26.6R		21.8 +22.6R		22.4 +19.6R		23 +17.3R		23.4 +15.4R		
		24"	q_a	q_f	524	844	499	803	434	699	394	634	366	589	346	557	331	532	319	513	309	498
			F	13.5 +84.5R		18.6 +54.5R		21.7 +39.6R		23.9 +30.9R		25.4 +25.1R		26.6 +21.1R		27.6 +18.1R		28.4 +15.9R		29 +14.1R		
16 ga	4"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	3.6 +63R		5.1 +41.9R		5.8 +31.4R		6.3 +25.1R		6.6 +20.9R		6.8 +17.9R		7 +15.7R		7.1 +13.9R		7.2 +12.5R			
	6"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	5.2 +62.5R		6.9 +41.6R		7.8 +31.1R		8.3 +24.8R		8.7 +20.7R		8.9 +17.7R		9.1 +15.5R		9.3 +13.8R		9.4 +12.4R			
	8"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	6.5 +62.1R		8.5 +41.1R		9.5 +30.7R		10.2 +24.5R		10.6 +20.4R		10.9 +17.4R		11.1 +15.2R		11.3 +13.5R		11.5 +12.2R			
	12"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	8.7 +61.2R		11.3 +40.2R		12.7 +29.9R		13.6 +23.7R		14.2 +19.6R		14.6 +16.7R		15 +14.6R		15.3 +12.9R		15.5 +11.6R			
	18"	q_a	q_f	658	1060	658	1060	658	1060	627	1009	578	930	579	932	547	881	522	841	529	851	
		F	11.2 +60.1R		14.6 +38.9R		16.6 +28.5R		17.9 +22.4R		18.9 +18.3R		19.6 +15.5R		20.2 +13.4R		20.6 +11.8R		21 +10.5R			
	24"	q_a	q_f	658	1060	653	1051	573	923	523	843	489	788	464	748	445	717	431	693	419	674	
		F	12.9 +59.2R		17.1 +37.8R		19.8 +27.2R		21.6 +21R		22.9 +17R		24 +14.2R		24.8 +12.1R		25.5 +10.5R		26 +9.3R			

4.5DF-12 24/4

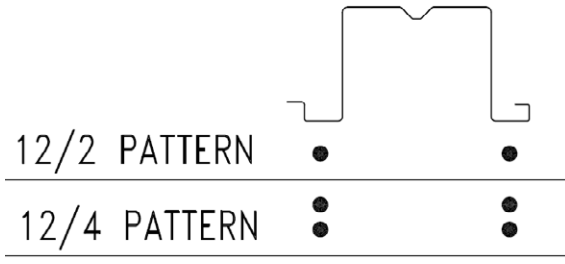
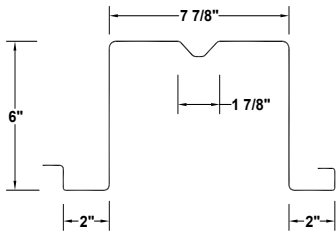
Support Attachment: #12 SD HWH Screw

Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS

5.3 6D-12

Deep Deck



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w psf	t in	F _y ksi	F _u ksi	A _g in ² /ft	I _g in ⁴ /ft	y _b in	y _t in	S _{gbot} in ³ /ft	r in
20	3.25	0.0359	40	55	0.975	5.518	3.16	2.841	1.747	2.379
18	4.37	0.0478	40	55	1.298	7.313	3.16	2.841	2.315	2.374
16	5.41	0.0598	40	55	1.622	9.107	3.16	2.841	2.883	2.370
14	6.86	0.0750	40	55	2.032	11.355	3.16	2.841	3.594	2.364

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								I _d = (2I _e +I _g)/3	
A _{e+} in ² /ft	S _{e+} in ³ /ft	y _b in	S _{e-} in ³ /ft	y _b in	I _{e+} in ⁴ /ft	I _{e-} in ⁴ /ft	I ₊ in ⁴ /ft	I ₋ in ⁴ /ft	
20	0.906	1.631	3.05	1.701	3.20	4.969	5.441	5.152	5.467
18	1.262	2.285	3.08	2.313	3.16	7.044	7.309	7.134	7.310
16	1.622	2.883	3.16	2.883	3.16	9.107	9.107	9.107	9.107
14	2.032	3.595	3.16	3.595	3.16	11.355	11.355	11.355	11.355

Reactions and supports (plf) Based on Web Crippling

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								I _d = (2I _e +I _g)/3	
A _{e+} in ² /ft	S _{e+} in ³ /ft	y _b in	S _{e-} in ³ /ft	y _b in	I _{e+} in ⁴ /ft	I _{e-} in ⁴ /ft	I ₊ in ⁴ /ft	I ₋ in ⁴ /ft	
20	0.906	1.631	3.05	1.701	3.20	4.969	5.441	5.152	5.467
18	1.262	2.285	3.08	2.313	3.16	7.044	7.309	7.134	7.310
16	1.622	2.883	3.16	2.883	3.16	9.107	9.107	9.107	9.107
14	2.032	3.595	3.16	3.595	3.16	11.355	11.355	11.355	11.355

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	260	181	133	102	80	65	54	45	39	33	29
		Φf_b	413	287	211	161	128	103	85	72	61	53	46
		L/360	225	130	82	55	39	28	21	16	13	10	8
		L/240	-	-	123	82	58	42	32	24	19	15	13
		L/180	-	-	-	-	77	56	42	33	26	21	17
	L/120	-	-	-	-	-	-	-	-	38	31	25	
	DS	f_b/Ω	272	189	139	106	84	68	56	47	40	35	30
		Φf_b	431	299	220	168	133	108	89	75	64	55	48
		L/360	-	-	-	-	-	-	54	42	33	26	21
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	340	236	173	133	105	85	70	59	50	43	38
		Φf_b	539	374	275	210	166	135	111	94	80	69	60
		L/360	-	-	-	129	90	66	50	38	30	24	20
L/240		-	-	-	-	-	-	-	57	45	36	29	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
18	SS	f_b/Ω	365	253	186	143	113	91	75	63	54	47	41
		Φf_b	579	402	295	226	179	145	120	100	86	74	64
		L/360	312	180	114	76	53	39	29	23	18	14	12
		L/240	-	-	170	114	80	58	44	34	27	21	17
		L/180	-	-	-	-	107	78	59	45	35	28	23
	L/120	-	-	-	-	-	-	-	-	53	43	35	
	DS	f_b/Ω	369	256	188	144	114	92	76	64	55	47	41
		Φf_b	586	407	299	229	181	146	121	102	87	75	65
		L/360	-	-	-	-	-	-	72	56	44	35	29
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	462	321	236	180	142	115	95	80	68	59	51
		Φf_b	732	509	374	286	226	183	151	127	108	93	81
		L/360	-	-	-	172	121	88	66	51	40	32	26
L/240		-	-	-	-	-	-	-	77	60	48	39	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
16	SS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	373	285	225	183	151	127	108	93	81
		L/360	398	230	145	97	68	50	37	29	23	18	15
		L/240	-	-	218	146	102	75	56	43	34	27	22
		L/180	-	-	-	-	136	100	75	58	45	36	29
	L/120	-	-	-	-	-	-	-	-	68	54	44	
	DS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	373	285	225	183	151	127	108	93	81
		L/360	-	-	-	-	-	-	90	69	55	44	36
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	575	400	294	225	178	144	119	100	85	73	64
		Φf_b	913	634	466	357	282	228	189	158	135	116	101
		L/360	-	-	-	214	151	110	82	64	50	40	33
L/240		-	-	-	-	-	-	-	95	75	60	49	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
14	SS	f_b/Ω	574	399	293	224	177	143	119	100	85	73	64
		Φf_b	911	632	465	356	281	228	188	158	135	116	101
		L/360	496	287	181	121	85	62	47	36	28	23	18
		L/240	-	-	271	182	128	93	70	54	42	34	28
		L/180	-	-	-	-	170	124	93	72	56	45	37
	L/120	-	-	-	-	-	-	-	-	85	68	55	
	DS	f_b/Ω	574	399	293	224	177	143	119	100	85	73	64
		Φf_b	911	632	465	356	281	228	188	158	135	116	101
		L/360	-	-	-	-	-	-	112	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	717	498	366	280	221	179	148	125	106	92	80
		Φf_b	1138	790	581	445	351	285	235	198	168	145	126
		L/360	-	-	-	267	188	137	103	79	62	50	41
L/240		-	-	-	-	-	-	-	119	93	75	61	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	

DEEP DECK PANELS

5.3 6D-12

Deep Deck

Allowable Wind Uplift Loads

6D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	101	88	78	68	56	47	40
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		191	159	136	106	84	68	56	47	40
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	101	88	78	68	56	47	40
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		191	159	136	106	84	68	56	47	40
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	101	88	78	71	64	59	50
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		191	159	136	119	105	85	70	59	50
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

6D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	96	84	75	67	56	47	40
	Hilti X-ENP-19 L15	≥ 1/4"	705		272	189	139	106	84	68	56	47	40
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	106	84	68	56	47	40
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		272	189	139	106	84	68	56	47	40
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	84	68	56	47	40
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	96	84	75	67	56	47	40
	Hilti X-ENP-19 L15	≥ 1/4"	705		272	189	139	106	84	68	56	47	40
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	106	84	68	56	47	40
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		272	189	139	106	84	68	56	47	40
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	84	68	56	47	40
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	96	84	75	67	61	56	50
	Hilti X-ENP-19 L15	≥ 1/4"	705		282	235	174	133	105	85	70	59	50
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	85	70	59	50
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		340	236	174	133	105	85	70	59	50
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	59	50

Allowable Wind Uplift Loads

6D-12		Support Fastener Pattern: 12 / 2											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	101	89	81	73	64	55
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		258	215	185	145	114	93	76	64	55
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	101	89	81	73	64	55
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		258	215	185	145	114	93	76	64	55
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	101	89	81	73	67	62
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		258	215	185	161	143	116	96	80	68
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

6D-12		Support Fastener Pattern: 12 / 4											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	128	112	100	90	76	64	55
	Hilti X-ENP-19 L15	≥ 1/4"	805		322	257	189	145	114	93	76	64	55
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	76	64	55
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		370	257	189	145	114	93	76	64	55
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	55
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	128	112	100	90	76	64	55
	Hilti X-ENP-19 L15	≥ 1/4"	805		322	257	189	145	114	93	76	64	55
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	76	64	55
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		370	257	189	145	114	93	76	64	55
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	55
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	128	112	100	90	81	75	68
	Hilti X-ENP-19 L15	≥ 1/4"	805		322	268	230	181	143	116	96	80	68
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		463	321	236	181	143	116	96	80	68
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59

5.3 6D-12

Deep Deck

Allowable Wind Uplift Loads

6D-12				Support Fastener Pattern: 12 / 2									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	180	142	115	95	80	68
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	180	142	115	95	80	68
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	178	144	119	100	85
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

6D-12				Support Fastener Pattern: 12 / 4									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	80	68
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	235	180	142	115	95	80	68
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		461	320	235	180	142	115	95	80	68
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	80	68
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	235	180	142	115	95	80	68
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		461	320	235	180	142	115	95	80	68
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	178	144	119	100	85
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		577	400	294	225	178	144	119	100	85
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59

Allowable Wind Uplift Loads

6D-12		Support Fastener Pattern: 12 / 2											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	178	144	119	100	85
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	178	144	119	100	85
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	180	162	147	125	106
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

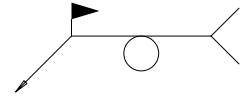
6D-12		Support Fastener Pattern: 12 / 4											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	178	144	119	100	85
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		575	399	293	225	178	144	119	100	85
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	178	144	119	100	85
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		575	399	293	225	178	144	119	100	85
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	196	176	149	125	106
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		649	499	367	281	222	180	149	125	106
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59

DEEP DECK PANELS

5.3 6D-12

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

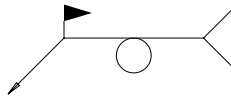


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
12/2	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-25.4 +529.5R	-14.8 +353R	-9.5 +264.7R	-6.3 +211.8R	-4.2 +176.5R	-2.7 +151.3R	-1.6 +132.4R	-0.7 +117.7R	0 +105.9R												
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-24.5 +529.4R	-13.9 +352.9R	-8.6 +264.7R	-5.4 +211.8R	-3.3 +176.5R	-1.7 +151.3R	-0.6 +132.3R	0.3 +117.6R	1 +105.9R												
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-23.6 +529.3R	-13 +352.9R	-7.6 +264.7R	-4.4 +211.7R	-2.3 +176.4R	-0.8 +151.2R	0.3 +132.3R	1.2 +117.6R	1.9 +105.9R												
	12"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	
		F	-21.9 +529.1R	-11.2 +352.7R	-5.8 +264.5R	-2.6 +211.6R	-0.5 +176.3R	1.1 +151.1R	2.2 +132.2R	3.1 +117.6R	3.8 +105.8R													
	18"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	
		F	-19.7 +528.7R	-8.7 +352.4R	-3.3 +264.2R	0 +211.4R	2.2 +176.1R	3.8 +151R	4.9 +132.1R	5.9 +117.4R	6.6 +105.7R													
	24"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	
		F	-17.6 +528.2R	-6.4 +352R	-0.8 +263.9R	2.5 +211.1R	4.8 +175.9R	6.4 +150.7R	7.6 +131.9R	8.6 +117.2R	9.3 +105.5R													
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-10.2 +253.4R	-5.2 +168.9R	-2.6 +126.7R	-1.1 +101.3R	-0.1 +84.5R	0.6 +72.4R	1.2 +63.3R	1.6 +56.3R	1.9 +50.7R												
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-9.5 +253.3R	-4.4 +168.9R	-1.8 +126.6R	-0.3 +101.3R	0.7 +84.4R	1.5 +72.4R	2 +63.3R	2.4 +56.3R	2.8 +50.7R												
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-8.7 +253.2R	-3.6 +168.8R	-1 +126.6R	0.5 +101.3R	1.5 +84.4R	2.3 +72.3R	2.8 +63.3R	3.2 +56.3R	3.6 +50.6R												
	12"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	
		F	-7.3 +253R	-2.1 +168.7R	0.5 +126.5R	2.1 +101.2R	3.1 +84.3R	3.9 +72.3R	4.4 +63.2R	4.9 +56.2R	5.2 +50.6R													
	18"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	
		F	-5.3 +252.7R	0 +168.4R	2.7 +126.2R	4.4 +101R	5.4 +84.1R	6.2 +72.1R	6.8 +63.1R	7.2 +56.1R	7.6 +50.5R													
	24"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	
		F	-3.5 +252.2R	2 +168R	4.9 +126R	6.5 +100.7R	7.7 +83.9R	8.5 +71.9R	9.1 +62.9R	9.6 +55.9R	9.9 +50.3R													
16 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-4.5 +143.5R	-1.6 +95.7R	-0.2 +71.7R	0.7 +57.4R	1.3 +47.8R	1.7 +41R	2 +35.9R	2.2 +31.9R	2.4 +28.7R													
	6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-3.8 +143.4R	-0.9 +95.6R	0.5 +71.7R	1.4 +57.4R	2 +47.8R	2.4 +41R	2.7 +35.9R	2.9 +31.9R	3.1 +28.7R													
	8"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-3.1 +143.4R	-0.2 +95.6R	1.2 +71.7R	2.1 +57.3R	2.7 +47.8R	3.1 +41R	3.4 +35.8R	3.7 +31.9R	3.9 +28.7R													
12"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730		
	F	-1.9 +143.2R	1.1 +95.4R	2.6 +71.6R	3.5 +57.3R	4.1 +47.7R	4.5 +40.9R	4.9 +35.8R	5.1 +31.8R	5.3 +28.6R														
18"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730		
	F	-0.1 +142.9R	3 +95.2R	4.6 +71.4R	5.5 +57.1R	6.2 +47.6R	6.6 +40.8R	7 +35.7R	7.2 +31.7R	7.5 +28.5R														
24"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730		
	F	1.5 +142.5R	4.8 +94.9R	6.5 +71.1R	7.5 +56.8R	8.2 +47.3R	8.7 +40.6R	9 +35.5R	9.3 +31.5R	9.5 +28.4R														
14 ga	4"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	-1.4 +78.7R	0.2 +52.5R	1 +39.4R	1.5 +31.5R	1.8 +26.2R	2 +22.5R	2.2 +19.7R	2.3 +17.5R	2.4 +15.7R													
	6"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	-0.7 +78.7R	0.9 +52.5R	1.7 +39.3R	2.1 +31.5R	2.5 +26.2R	2.7 +22.5R	2.9 +19.7R	3 +17.5R	3.1 +15.7R													
	8"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	-0.2 +78.6R	1.5 +52.4R	2.3 +39.3R	2.8 +31.4R	3.1 +26.2R	3.3 +22.5R	3.5 +19.7R	3.6 +17.5R	3.7 +15.7R													
12"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713		
	F	1 +78.5R	2.7 +52.3R	3.5 +39.2R	4 +31.4R	4.4 +26.1R	4.6 +22.4R	4.8 +19.6R	4.9 +17.4R	5 +15.7R														
18"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713		
	F	2.5 +78.2R	4.3 +52.1R	5.3 +39R	5.8 +31.2R	6.2 +26R	6.5 +22.3R	6.6 +19.5R	6.8 +17.3R	6.9 +15.6R														
24"	q_a	q_f	1696	2713	1696	2713	1661	2713	1628	2686	1605	2648	1587	2619	1573	2596	1562	2578	1562	2578	1562	2578		
	F	4 +77.9R	5.9 +51.8R	6.9 +38.8R	7.5 +31R	8 +25.8R	8.3 +22.1R	8.5 +19.4R	8.6 +17.2R	8.8 +15.5R														

6D-12 5.3

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
12/4	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-25.4	+529.4R	-14.8	+353R	-9.5	+264.7R	-6.3	+211.8R	-4.2	+176.5R	-2.7	+151.3R	-1.6	+132.4R	-0.7	+117.6R	0	+105.9R			
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-24.6	+529.3R	-13.9	+352.9R	-8.6	+264.6R	-5.4	+211.7R	-3.3	+176.4R	-1.8	+151.2R	-0.6	+132.3R	0.3	+117.6R	1	+105.9R			
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-23.8	+529.2R	-13.1	+352.8R	-7.8	+264.6R	-4.5	+211.6R	-2.4	+176.4R	-0.9	+151.2R	0.3	+132.3R	1.2	+117.6R	1.9	+105.8R			
		12"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-22.4	+528.9R	-11.6	+352.5R	-6.1	+264.3R	-2.8	+211.4R	-0.7	+176.2R	0.9	+151R	2.1	+132.1R	3	+117.4R	3.7	+105.7R			
		18"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.6	+528.3R	-9.4	+352R	-3.8	+263.9R	-0.4	+211.1R	1.8	+175.9R	3.4	+150.7R	4.6	+131.9R	5.6	+117.2R	6.3	+105.5R			
		24"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-19	+527.8R	-7.6	+351.5R	-1.7	+263.4R	1.8	+210.6R	4.1	+175.4R	5.8	+150.3R	7.1	+131.5R	8.1	+116.9R	8.9	+105.2R			
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-10.3	+253.3R	-5.2	+168.9R	-2.7	+126.7R	-1.1	+101.3R	-0.1	+84.4R	0.6	+72.4R	1.2	+63.3R	1.6	+56.3R	1.9	+50.7R			
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-9.6	+253.2R	-4.4	+168.8R	-1.9	+126.6R	-0.3	+101.3R	0.7	+84.4R	1.4	+72.3R	2	+63.3R	2.4	+56.3R	2.7	+50.6R			
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-8.9	+253.1R	-3.7	+168.7R	-1.1	+126.5R	0.4	+101.2R	1.5	+84.3R	2.2	+72.3R	2.8	+63.3R	3.2	+56.2R	3.5	+50.6R			
		12"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-7.7	+252.8R	-2.4	+168.5R	0.3	+126.3R	1.9	+101R	3	+84.2R	3.7	+72.2R	4.3	+63.1R	4.8	+56.1R	5.1	+50.5R			
		18"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-6.1	+252.4R	-0.6	+168.1R	2.3	+126R	4	+100.7R	5.1	+83.9R	5.9	+71.9R	6.5	+62.9R	7	+55.9R	7.4	+50.3R			
		24"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-4.8	+251.9R	1.1	+167.6R	4.1	+125.5R	5.9	+100.3R	7.1	+83.5R	8	+71.6R	8.6	+62.6R	9.2	+55.6R	9.6	+50R			
16 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-4.6	+143.4R	-1.7	+95.6R	-0.2	+71.7R	0.7	+57.4R	1.2	+47.8R	1.6	+41R	2	+35.9R	2.2	+31.9R	2.4	+28.7R				
	6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-3.9	+143.4R	-1	+95.6R	0.5	+71.7R	1.4	+57.3R	1.9	+47.8R	2.4	+40.9R	2.7	+35.8R	2.9	+31.8R	3.1	+28.7R				
	8"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-3.3	+143.3R	-0.3	+95.5R	1.1	+71.6R	2	+57.3R	2.6	+47.7R	3.1	+40.9R	3.4	+35.8R	3.6	+31.8R	3.8	+28.6R				
	12"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-2.2	+143R	0.9	+95.3R	2.4	+71.4R	3.4	+57.1R	4	+47.6R	4.4	+40.8R	4.8	+35.7R	5	+31.7R	5.2	+28.5R				
	18"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-0.8	+142.6R	2.5	+94.9R	4.2	+71.1R	5.2	+56.8R	5.9	+47.3R	6.4	+40.6R	6.7	+35.5R	7	+31.5R	7.3	+28.4R				
	24"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	0.4	+142.2R	3.9	+94.5R	5.8	+70.7R	6.9	+56.5R	7.7	+47R	8.2	+40.3R	8.6	+35.2R	9	+31.3R	9.2	+28.1R				
14 ga	4"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	-1.4	+78.7R	0.2	+52.5R	1	+39.3R	1.5	+31.5R	1.8	+26.2R	2	+22.5R	2.2	+19.7R	2.3	+17.5R	2.4	+15.7R				
	6"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	-0.8	+78.6R	0.8	+52.4R	1.6	+39.3R	2.1	+31.4R	2.4	+26.2R	2.7	+22.5R	2.8	+19.6R	3	+17.5R	3.1	+15.7R				
	8"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	-0.3	+78.5R	1.4	+52.3R	2.2	+39.2R	2.7	+31.4R	3	+26.2R	3.3	+22.4R	3.5	+19.6R	3.6	+17.4R	3.7	+15.7R				
	12"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	0.7	+78.3R	2.4	+52.2R	3.3	+39.1R	3.9	+31.3R	4.2	+26R	4.5	+22.3R	4.7	+19.5R	4.8	+17.4R	5	+15.6R				
	18"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	1.9	+78R	3.9	+51.8R	4.9	+38.8R	5.5	+31R	5.9	+25.8R	6.2	+22.1R	6.4	+19.3R	6.6	+17.2R	6.8	+15.5R				
	24"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	3	+77.6R	5.2	+51.5R	6.3	+38.5R	7	+30.7R	7.5	+25.5R	7.9	+21.9R	8.1	+19.1R	8.3	+17R	8.5	+15.3R				

6D-12 12/4

Support Attachment: 0.5" Effective Dia. Arc Spot Weld

Side Seam Attachment: Top Seam Side-Lap Weld

DEEP DECK PANELS

5.3 6D-12

No. 12 Self-Drilling Screws to Supports with

No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/2	20 ga	4"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629		
			F	-53.1 +1254R	-27.8 +835.9R	-15.1 +626.9R	-7.5 +501.5R	-2.5 +417.9R	1.1 +358.2R	3.9 +313.5R	6 +278.6R	7.7 +250.8R												
		6"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-48 +1253.2R	-22.4 +835.3R	-9.6 +626.5R	-1.9 +501.1R	3.3 +417.6R	7 +357.9R	9.7 +313.2R	11.9 +278.4R	13.6 +250.5R												
		8"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-43.3 +1252.2R	-17.3 +834.6R	-4.2 +625.8R	3.7 +500.6R	8.9 +417.1R	12.7 +357.5R	15.5 +312.8R	17.7 +278R	19.4 +250.2R												
	12"	q_a	q_f	369	594	339	545	323	520	314	505	307	495	303	488	299	482	297	478	295	474	295	474	
		F	-34.9 +1250.1R	-7.7 +832.7R	6 +624.2R	14.2 +499.2R	19.7 +415.9R	23.7 +356.4R	26.7 +311.8R	29 +277.2R	30.8 +249.4R													
	18"	q_a	q_f	302	594	249	402	259	417	236	379	220	355	230	370	219	353	211	339	217	350	217	350	
		F	-24.2 +1246.6R	5 +829.5R	19.8 +621.3R	28.9 +496.6R	35 +413.6R	39.3 +354.3R	42.6 +309.9R	45.2 +275.3R	47.3 +247.7R													
	24"	q_a	q_f	231	372	202	325	187	301	178	287	172	278	168	271	165	266	163	262	161	259	161	259	
		F	-15.3 +1243.2R	16 +826R	32.3 +618R	42.3 +493.5R	49.1 +410.7R	54 +351.7R	57.7 +307.4R	60.6 +273.1R	62.9 +245.6R													
	18 ga	4"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-18.2 +599.8R	-6 +399.8R	0.1 +299.9R	3.8 +239.9R	6.2 +199.9R	8 +171.3R	9.3 +149.9R	10.3 +133.3R	11.1 +119.9R												
		6"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-13.9 +599.1R	-1.3 +399.3R	4.9 +299.4R	8.7 +239.5R	11.2 +199.6R	13 +171.1R	14.4 +149.7R	15.4 +133R	16.2 +119.7R												
		8"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-9.8 +598.3R	3.1 +398.6R	9.6 +298.9R	13.5 +239.1R	16.1 +199.2R	17.9 +170.7R	19.3 +149.4R	20.4 +132.8R	21.3 +119.5R												
	12"	q_a	q_f	524	844	504	812	484	780	472	760	464	747	458	738	454	731	450	725	448	721	448	721	
		F	-2.5 +596.4R	11.3 +397.1R	18.3 +297.5R	22.6 +237.9R	25.4 +198.1R	27.4 +169.8R	29 +148.5R	30.2 +132R	31.1 +118.8R													
	18"	q_a	q_f	452	844	376	605	391	630	358	577	336	541	349	561	333	536	321	516	331	533	331	533	
		F	6.7 +593.4R	22.3 +394.3R	30.3 +295R	35.2 +235.6R	38.5 +196.1R	40.9 +167.9R	42.8 +146.8R	44.2 +130.4R	45.3 +117.3R													
	24"	q_a	q_f	341	548	301	485	282	454	270	435	262	422	257	413	252	406	249	401	247	397	247	397	
		F	14.4 +590.5R	31.8 +391.3R	41.1 +292.2R	46.8 +233R	50.7 +193.7R	53.6 +165.7R	55.8 +144.7R	57.5 +128.5R	58.8 +115.5R													
16 ga	4"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	-5.3 +339.5R	1.7 +226.3R	5.2 +169.7R	7.3 +135.8R	8.7 +113.1R	9.7 +97R	10.5 +84.8R	11.1 +75.4R	11.5 +67.9R													
	6"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	-1.4 +338.9R	5.9 +225.8R	9.5 +169.3R	11.7 +135.4R	13.2 +112.9R	14.2 +96.7R	15 +84.6R	15.6 +75.2R	16.1 +67.7R													
	8"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	2.2 +338.2R	9.8 +225.2R	13.6 +168.9R	16 +135R	17.5 +112.5R	18.6 +96.4R	19.4 +84.4R	20.1 +75R	20.6 +67.5R													
12"	q_a	q_f	658	1060	658	1060	658	1060	646	1041	637	1025	629	1013	624	1005	620	998	617	993	617	993		
	F	8.7 +336.5R	17.2 +223.8R	21.5 +167.6R	24.1 +134R	25.8 +111.6R	27.1 +95.6R	28 +83.6R	28.8 +74.3R	29.4 +66.8R														
18"	q_a	q_f	612	1060	517	832	534	860	491	791	462	744	480	773	459	740	443	714	458	737	458	737		
	F	17 +333.8R	26.9 +221.3R	32.2 +165.4R	35.4 +132R	37.6 +109.7R	39.1 +93.9R	40.3 +82.1R	41.3 +72.9R	42 +65.5R														
24"	q_a	q_f	461	743	412	663	387	624	373	600	363	584	356	573	351	564	346	558	343	553	343	553		
	F	23.8 +331.2R	35.4 +218.7R	41.7 +162.9R	45.7 +129.6R	48.4 +107.6R	50.4 +91.9R	52 +80.2R	53.1 +71.1R	54.1 +63.9R														
14 ga	4"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F	1.5 +186.1R	5.5 +124.1R	7.4 +93R	8.6 +74.4R	9.4 +62R	10 +53.2R	10.4 +46.5R	10.7 +41.3R	11 +37.2R													
	6"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F	5 +185.6R	9.2 +123.7R	11.2 +92.7R	12.5 +74.1R	13.3 +61.8R	13.9 +52.9R	14.4 +46.3R	14.7 +41.2R	15 +37.1R													
	8"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	
		F	8.2 +185R	12.7 +123.1R	14.9 +92.3R	16.3 +73.8R	17.2 +61.5R	17.8 +52.7R	18.3 +46.1R	18.7 +40.9R	19 +36.8R													
12"	q_a	q_f	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347	837	1347		
	F	14 +183.5R	19.2 +121.9R	21.9 +91.2R	23.5 +72.8R	24.6 +60.6R	25.4 +51.9R	26 +45.4R	26.4 +40.3R	26.8 +36.3R														
18"	q_a	q_f	837	1347	714	1149	743	1196	685	1103	646	1040	673	1084	645	1039	623	1003	644	1038	644	1038		
	F	21.3 +181.1R	27.9 +119.7R	31.3 +89.2R	33.5 +71.1R	35 +59R	36.1 +50.5R	36.9 +44.1R	37.5 +39.1R	38 +35.1R														
24"	q_a	q_f	637	1026	575	925	543	875	525	845	512	824	503	810	495	797	489	787	484	779	484	779		
	F	27.4 +178.8R	35.4 +117.3R	39.8 +87R	42.7 +69R	44.6 +57.1R	46.1 +48.7R	47.2 +42.4R	48 +37.5R	48.7 +33.7R														

5.3 6D-12

Hilti X-HSN-24 Fasteners to Supports with

No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
12/2	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-55.3 +1304.1R	-28.9 +869.4R	-15.8 +652R	-7.9 +521.6R	-2.6 +434.7R	1.2 +372.6R	4 +326R	6.2 +289.8R	8 +260.8R										
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-50 +1303.3R	-23.3 +868.7R	-10 +651.5R	-2 +521.2R	3.4 +434.3R	7.2 +372.2R	10.1 +325.7R	12.3 +289.5R	14.1 +260.5R										
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-45.2 +1302.3R	-18 +867.9R	-4.4 +650.8R	3.8 +520.6R	9.2 +433.8R	13.1 +371.8R	16.1 +325.3R	18.3 +289.1R	20.2 +260.2R										
	12"	q_a	q_f	399	639	378	608	355	572	341	550	332	535	326	524	321	517	317	510	314	506	
		F	-36.5 +1300R	-8.2 +866R	6.1 +649.1R	14.7 +519.1R	20.4 +432.5R	24.5 +370.6R	27.6 +324.3R	30 +288.2R	32 +259.3R											
	18"	q_a	q_f	352	639	282	455	283	456	255	411	237	381	244	393	231	372	222	357	228	367	
		F	-25.6 +1296.4R	4.8 +862.6R	20.3 +646R	29.8 +516.3R	36.1 +430R	40.7 +368.3R	44.1 +322.1R	46.8 +286.2R	49 +257.5R											
	24"	q_a	q_f	280	451	235	378	212	341	198	319	189	304	182	294	178	286	174	280	171	275	
		F	-16.6 +1292.9R	16.1 +858.9R	33.1 +642.6R	43.6 +513.1R	50.7 +427R	55.8 +365.5R	59.7 +319.6R	62.8 +283.8R	65.2 +255.3R											
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-19 +623.8R	-6.3 +415.8R	0.1 +311.8R	3.9 +249.5R	6.5 +207.9R	8.3 +178.2R	9.7 +155.9R	10.7 +138.6R	11.6 +124.7R										
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-14.5 +623R	-1.4 +415.2R	5.1 +311.4R	9 +249.1R	11.6 +207.6R	13.5 +177.9R	14.9 +155.6R	16 +138.4R	16.9 +124.5R										
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	700	1125	691	1113	684	1102	679	1093	675	1086
			F	-10.3 +622.2R	3.1 +414.5R	9.9 +310.8R	14 +248.6R	16.7 +207.1R	18.6 +177.5R	20.1 +155.3R	21.2 +138R	22.1 +124.2R										
	12"	q_a	q_f	628	1010	567	913	537	864	519	835	507	816	497	800	489	788	483	778	479	770	
		F	-2.8 +620.2R	11.6 +412.9R	18.9 +309.4R	23.4 +247.3R	26.3 +206R	28.5 +176.5R	30.1 +154.4R	31.3 +137.2R	32.3 +123.5R											
	18"	q_a	q_f	516	1010	418	674	425	685	385	620	358	576	370	596	352	567	338	544	349	561	
		F	6.6 +617.1R	22.8 +409.9R	31.3 +306.7R	36.4 +244.9R	39.9 +203.8R	42.4 +174.5R	44.3 +152.6R	45.8 +135.5R	47 +121.9R											
	24"	q_a	q_f	405	651	344	554	314	505	296	476	284	457	275	443	268	432	263	424	259	418	
		F	14.4 +614.1R	32.6 +406.8R	42.3 +303.7R	48.3 +242.1R	52.4 +201.2R	55.4 +172.1R	57.7 +150.4R	59.5 +133.5R	61 +120R											
16 ga	4"	q_a	q_f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617			
		F	-5.6 +353.1R	1.7 +235.3R	5.4 +176.5R	7.6 +141.2R	9.1 +117.6R	10.1 +100.8R	10.9 +88.2R	11.5 +78.4R	12 +70.6R											
	6"	q_a	q_f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617			
		F	-1.5 +352.4R	6.1 +234.8R	9.9 +176.1R	12.1 +140.8R	13.7 +117.4R	14.8 +100.6R	15.6 +88R	16.2 +78.2R	16.7 +70.4R											
	8"	q_a	q_f	1004	1617	1004	1617	996	1603	974	1567	958	1543	948	1526	939	1512	933	1502	928	1494	
		F	2.2 +351.6R	10.1 +234.2R	14.1 +175.6R	16.5 +140.4R	18.2 +117R	19.3 +100.2R	20.2 +87.7R	20.8 +77.9R	21.4 +70.1R											
12"	q_a	q_f	852	1372	777	1252	737	1187	712	1146	695	1119	683	1099	674	1085	667	1073	661	1064		
	F	8.9 +349.9R	17.7 +232.7R	22.2 +174.3R	24.9 +139.3R	26.8 +116R	28.1 +99.4R	29.1 +86.9R	29.9 +77.2R	30.5 +69.5R												
18"	q_a	q_f	696	1372	568	915	583	939	529	852	493	794	512	825	488	785	468	754	484	780		
	F	17.3 +347.1R	27.7 +230.1R	33.2 +171.9R	36.6 +137.1R	38.9 +114R	40.5 +97.6R	41.8 +85.3R	42.8 +75.7R	43.6 +68.1R												
24"	q_a	q_f	539	867	464	747	426	686	404	650	389	626	378	609	370	596	364	586	359	578		
	F	24.2 +344.4R	36.4 +227.3R	43 +169.2R	47.2 +134.6R	50.1 +111.7R	52.2 +95.4R	53.8 +83.3R	55.1 +73.9R	56.1 +66.3R												
14 ga	4"	q_a	q_f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020			
		F	1.6 +193.6R	5.7 +129R	7.7 +96.7R	8.9 +77.4R	9.8 +64.5R	10.3 +55.3R	10.8 +48.4R	11.1 +43R	11.4 +38.7R											
	6"	q_a	q_f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020			
		F	5.2 +193R	9.5 +128.6R	11.7 +96.4R	13 +77.1R	13.9 +64.2R	14.5 +55R	15 +48.2R	15.3 +42.8R	15.6 +38.5R											
	8"	q_a	q_f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020			
		F	8.5 +192.3R	13.1 +128R	15.5 +95.9R	16.9 +76.7R	17.8 +63.9R	18.5 +54.7R	19 +47.9R	19.4 +42.6R	19.7 +38.3R											
12"	q_a	q_f	1168	1881	1071	1724	1020	1643	990	1594	969	1560	954	1537	943	1519	935	1505	928	1494		
	F	14.4 +190.8R	19.8 +126.7R	22.6 +94.8R	24.3 +75.7R	25.5 +63R	26.3 +54R	26.9 +47.2R	27.4 +41.9R	27.8 +37.7R												
18"	q_a	q_f	956	1881	787	1267	815	1312	742	1194	693	1116	723	1163	688	1108	662	1066	684	1102		
	F	21.8 +188.3R	28.7 +124.4R	32.4 +92.7R	34.7 +73.8R	36.2 +61.3R	37.4 +52.4R	38.2 +45.7R	38.9 +40.6R	39.4 +36.5R												
24"	q_a	q_f	731	1177	637	1026	590	950	562	905	543	875	530	853	520	837	512	824	506	814		
	F	28 +185.9R	36.4 +121.9R	41.1 +90.3R	44.1 +71.6R	46.2 +59.2R	47.7 +50.5R	48.9 +44R	49.8 +38.9R	50.5 +34.9R												

6D-12 5.3

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
12/4	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-56.2 +1303.6R	-29.6 +868.9R	-16.3 +651.6R	-8.3 +521.3R	-2.9 +434.4R	0.9 +372.3R	3.7 +325.8R	6 +289.6R	7.7 +260.6R										
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-51.8 +1302.5R	-24.7 +868R	-11 +650.8R	-2.8 +520.5R	2.7 +433.7R	6.6 +371.7R	9.5 +325.2R	11.8 +289.1R	13.7 +260.2R										
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-48.1 +1301.3R	-20.2 +866.8R	-6.2 +649.8R	2.3 +519.7R	8 +432.9R	12 +371R	15.1 +324.6R	17.5 +288.5R	19.4 +259.6R										
	12"	q_a	q_f	399	639	399	639	399	639	399	639	391	630	376	606	365	588	356	574	349	562	
		F	-41.9 +1298.9R	-12.5 +864.4R	2.5 +647.5R	11.6 +517.5R	17.8 +431R	22.2 +369.2R	25.6 +322.9R	28.2 +286.9R	30.3 +258.1R											
	18"	q_a	q_f	399	639	399	639	372	598	326	525	296	476	294	474	275	443	261	420	263	424	
		F	-35 +1295.8R	-3.2 +860.9R	13.4 +643.9R	23.8 +514R	30.8 +427.6R	35.9 +366R	39.8 +319.8R	42.9 +284R	45.4 +255.3R											
	24"	q_a	q_f	399	639	352	567	300	483	269	433	248	399	233	375	222	357	213	343	206	332	
		F	-29.9 +1293.2R	4.1 +857.7R	22.4 +640.4R	34 +510.4R	42.1 +424R	48 +362.4R	52.6 +316.4R	56.2 +280.6R	59.2 +252.1R											
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-19.7 +623.3R	-6.8 +415.4R	-0.3 +311.5R	3.6 +249.2R	6.2 +207.6R	8 +178R	9.4 +155.7R	10.5 +138.4R	11.4 +124.6R										
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-16 +622.3R	-2.6 +414.6R	4.2 +310.8R	8.3 +248.6R	11 +207.1R	13 +177.5R	14.4 +155.3R	15.6 +138R	16.5 +124.2R										
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-12.8 +621.3R	1.3 +413.6R	8.4 +309.9R	12.7 +247.8R	15.6 +206.4R	17.7 +176.8R	19.2 +154.7R	20.4 +137.5R	21.4 +123.7R										
	12"	q_a	q_f	703	1125	703	1125	654	1053	612	986	585	941	565	909	550	885	538	867	529	852	
		F	-7.4 +619.3R	7.9 +411.6R	15.9 +308R	20.8 +246R	24.1 +204.7R	26.5 +175.3R	28.3 +153.2R	29.7 +136.1R	30.8 +122.4R											
	18"	q_a	q_f	703	1125	574	925	542	873	479	770	436	702	437	704	411	661	390	628	395	637	
		F	-1.5 +616.6R	15.9 +408.5R	25.3 +304.9R	31.2 +242.9R	35.3 +201.8R	38.3 +172.5R	40.6 +150.6R	42.4 +133.6R	43.9 +120R											
	24"	q_a	q_f	639	1028	500	805	431	694	389	627	362	582	342	550	327	526	315	508	306	493	
		F	2.9 +614.3R	22.2 +405.7R	33 +301.8R	40.1 +239.8R	45 +198.7R	48.7 +169.4R	51.6 +147.6R	53.9 +130.7R	55.8 +117.2R											
16 ga	4"	q_a	q_f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	
		F	-6.2 +352.7R	1.3 +235R	5 +176.2R	7.3 +140.9R	8.8 +117.4R	9.9 +100.7R	10.7 +88.1R	11.3 +78.3R	11.8 +70.4R											
	6"	q_a	q_f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	
		F	-2.9 +351.8R	5 +234.3R	9.1 +175.6R	11.5 +140.4R	13.1 +116.9R	14.3 +100.2R	15.1 +87.7R	15.8 +77.9R	16.4 +70.1R											
	8"	q_a	q_f	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	
		F	0 +350.9R	8.5 +233.4R	12.8 +174.8R	15.4 +139.7R	17.2 +116.3R	18.5 +99.6R	19.4 +87.1R	20.2 +77.4R	20.8 +69.7R											
12"	q_a	q_f	1004	1617	971	1563	885	1425	833	1342	799	1287	775	1247	756	1217	742	1194	730	1176		
	F	4.8 +349R	14.4 +231.6R	19.5 +173R	22.6 +138.1R	24.8 +114.8R	26.3 +98.2R	27.5 +85.9R	28.4 +76.2R	29.2 +68.5R												
18"	q_a	q_f	986	1617	762	1226	728	1172	645	1039	590	950	595	959	560	902	533	858	542	873		
	F	10.1 +346.6R	21.5 +228.8R	27.9 +170.3R	31.9 +135.3R	34.8 +112.2R	36.9 +95.7R	38.5 +83.5R	39.8 +74R	40.8 +66.4R												
24"	q_a	q_f	829	1335	657	1058	571	920	520	837	485	782	461	742	443	712	428	689	417	671		
	F	14 +344.6R	27.2 +226.3R	34.8 +167.5R	39.8 +132.6R	43.5 +109.4R	46.2 +93R	48.3 +80.8R	50 +71.4R	51.4 +63.9R												
14 ga	4"	q_a	q_f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	
		F	1 +193.2R	5.2 +128.7R	7.4 +96.5R	8.7 +77.2R	9.5 +64.3R	10.2 +55.1R	10.6 +48.2R	11 +42.9R	11.3 +38.6R											
	6"	q_a	q_f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	
		F	3.9 +192.4R	8.6 +128.1R	11 +95.9R	12.4 +76.7R	13.4 +63.9R	14.1 +54.7R	14.6 +47.9R	15 +42.5R	15.3 +38.3R											
	8"	q_a	q_f	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	1255	2020	
		F	6.5 +191.6R	11.6 +127.3R	14.3 +95.2R	15.9 +76.1R	17 +63.3R	17.8 +54.2R	18.4 +47.4R	18.8 +42.1R	19.2 +37.9R											
12"	q_a	q_f	1255	2020	1255	2020	1221	1966	1157	1862	1114	1793	1083	1744	1060	1707	1042	1678	1028	1655		
	F	10.7 +190R	16.9 +125.7R	20.2 +93.7R	22.3 +74.6R	23.7 +62R	24.7 +53R	25.5 +46.3R	26.2 +41R	26.7 +36.9R												
18"	q_a	q_f	1255	2020	1029	1656	996	1604	887	1428	814	1311	826	1330	779	1254	743	1195	758	1221		
	F	15.5 +187.9R	23.2 +123.2R	27.7 +91.2R	30.5 +72.2R	32.6 +59.7R	34.1 +50.8R	35.3 +44.1R	36.2 +39R	37 +35R												
24"	q_a	q_f	1093	1760	879	1415	772	1242	707	1138	664	1069	634	1020	611	983	593	954	578	931		
	F	18.9 +186.1R	28.2 +121R	33.8 +88.8R	37.6 +69.7R	40.3 +57.2R	42.4 +48.3R	44 +41.8R	45.3 +36.8R	46.4 +32.8R												

DEEP DECK PANELS

5.3 6D-12

Hilti X-ENP-19 Fasteners to Supports with

No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/2	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-93.1 +2172.9R	-48.9 +1448.4R	-26.8 +1086.2R	-13.6 +869R	-4.7 +724.1R	1.6 +620.7R	6.4 +543.1R	10.1 +482.7R	13 +434.4R												
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-85.4 +2171.1R	-40.4 +1446.9R	-17.8 +1085R	-4.2 +867.9R	4.8 +723.2R	11.3 +619.8R	16.2 +542.3R	20 +482R	23 +433.8R												
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-78.6 +2169.2R	-32.6 +1445.2R	-9.4 +1083.5R	4.6 +866.5R	14 +722R	20.7 +618.7R	25.7 +541.3R	29.6 +481.1R	32.7 +433R												
	12"	q_a	q_f	399	639	385	620	360	580	346	556	336	541	329	529	324	521	319	514	316	509			
		F	-67.2 +2165.1R	-18.7 +1441.3R	6 +1079.9R	21 +863.3R	31.1 +719R	38.3 +616R	43.7 +538.8R	48 +478.8R	51.4 +430.8R													
	18"	q_a	q_f	362	639	289	466	289	465	260	418	240	387	247	397	234	377	224	360	230	371			
		F	-53.9 +2159.5R	-1.5 +1435.3R	25.8 +1074R	42.7 +857.6R	54.1 +713.6R	62.4 +611R	68.7 +534.1R	73.6 +474.4R	77.6 +426.6R													
	24"	q_a	q_f	291	468	242	389	217	349	202	326	192	310	185	299	180	290	176	284	173	278			
		F	-43.8 +2154.7R	12.5 +1429.6R	42.6 +1068R	61.5 +851.6R	74.5 +707.8R	84.1 +605.3R	91.4 +528.6R	97.1 +469.1R	101.8 +421.6R													
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-32.5 +1039.1R	-11.1 +692.6R	-0.3 +519.4R	6.2 +415.5R	10.5 +346.2R	13.5 +296.7R	15.8 +259.6R	17.6 +230.8R	19.1 +207.7R												
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-25.9 +1037.5R	-3.7 +691.3R	7.5 +518.3R	14.2 +414.5R	18.7 +345.4R	21.9 +296R	24.3 +259R	26.2 +230.2R	27.7 +207.1R												
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	701	1125	694	1117	688	1107	683	1100				
			F	-20 +1035.8R	3.1 +689.8R	14.8 +517R	21.8 +413.4R	26.6 +344.3R	30 +295.1R	32.5 +258.1R	34.5 +229.4R	36.1 +206.4R												
	12"	q_a	q_f	642	1033	576	928	544	876	524	844	511	823	502	808	495	797	489	787	484	779			
		F	-10.1 +1032.4R	15.1 +686.4R	28 +513.9R	36 +410.6R	41.3 +341.8R	45.2 +292.7R	48.1 +256R	50.4 +227.4R	52.2 +204.6R													
	18"	q_a	q_f	530	1033	428	689	432	696	390	629	363	584	374	603	356	572	341	549	351	566			
		F	1.3 +1027.5R	29.9 +681.2R	45.1 +508.8R	54.7 +405.7R	61.2 +337.2R	66 +288.4R	69.6 +251.9R	72.5 +223.6R	74.8 +200.9R													
	24"	q_a	q_f	419	674	353	569	321	516	301	485	288	464	279	449	272	438	266	429	262	422			
		F	10 +1023.4R	41.9 +676.3R	59.6 +503.6R	70.9 +400.5R	78.8 +332.1R	84.7 +283.5R	89.2 +247.2R	92.8 +219.1R	95.7 +196.6R													
16 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730			
		F	-10 +588R	2.4 +391.8R	8.6 +293.8R	12.3 +235R	14.8 +195.8R	16.6 +167.9R	17.9 +146.9R	19 +130.5R	19.8 +117.5R													
	6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730			
		F	-4.1 +586.6R	8.9 +390.7R	15.5 +292.9R	19.5 +234.2R	22.1 +195.1R	24 +167.2R	25.5 +146.3R	26.6 +130R	27.5 +117R													
	8"	q_a	q_f	1081	1730	1056	1701	1016	1635	991	1595	974	1569	962	1549	953	1535	946	1523	940	1514			
		F	1.1 +585.1R	15 +389.4R	22 +291.7R	26.3 +233.2R	29.2 +194.2R	31.2 +166.4R	32.8 +145.5R	34 +129.3R	35 +116.4R													
12"	q_a	q_f	870	1400	789	1270	749	1205	724	1166	705	1136	692	1114	682	1098	674	1086	668	1075				
	F	10 +582R	25.7 +386.4R	33.9 +288.9R	38.9 +230.7R	42.3 +191.9R	44.8 +164.3R	46.7 +143.6R	48.2 +127.5R	49.3 +114.7R														
18"	q_a	q_f	713	1400	580	933	592	953	536	863	499	803	517	833	492	792	472	760	488	785				
	F	20.2 +577.7R	38.9 +381.7R	49.1 +284.4R	55.6 +226.3R	60.1 +187.8R	63.4 +160.4R	65.9 +140R	67.9 +124.1R	69.5 +111.5R														
24"	q_a	q_f	556	895	475	765	435	700	411	661	394	635	383	617	374	603	368	592	362	583				
	F	28 +574R	49.7 +377.3R	62 +279.7R	70.1 +221.7R	75.8 +183.2R	80.1 +156R	83.4 +135.7R	86 +120.1R	88.2 +107.6R														
14 ga	4"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176			
		F	2 +322.2R	9 +214.7R	12.5 +161R	14.6 +128.7R	16 +107.3R	17 +91.9R	17.8 +80.4R	18.4 +71.5R	18.9 +64.3R													
	6"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176			
		F	7.2 +321R	14.8 +213.7R	18.6 +160.1R	21 +128R	22.5 +106.6R	23.7 +91.4R	24.5 +79.9R	25.1 +71R	25.7 +63.9R													
	8"	q_a	q_f	1351	2176	1351	2176	1351	2176	1351	2176	1340	2157	1329	2140	1321	2126	1314	2115					
		F	11.8 +319.6R	20.2 +212.5R	24.4 +159.1R	27 +127.1R	28.8 +105.8R	30 +90.6R	31 +79.3R	31.7 +70.4R	32.3 +63.3R													
12"	q_a	q_f	1202	1935	1095	1763	1040	1674	1006	1620	984	1584	968	1558	955	1538	946	1523	938	1511				
	F	19.7 +316.9R	29.6 +209.8R	34.9 +156.6R	38.2 +124.9R	40.4 +103.8R	42.1 +88.8R	43.3 +77.5R	44.3 +68.8R	45.1 +61.9R														
18"	q_a	q_f	977	1935	801	1290	826	1330	751	1208	700	1128	729	1173	694	1117	667	1073	690	1111				
	F	28.8 +313.1R	41.4 +205.7R	48.5 +152.6R	53 +121R	56.2 +100.1R	58.5 +85.3R	60.3 +74.3R	61.8 +65.8R	62.9 +59R														
24"	q_a	q_f	752	1211	651	1049	601	968	571	919	551	886	536	863	525	846	517	832	510	821				
	F	35.6 +309.8R	50.9 +201.8R	59.9 +148.5R	65.9 +116.9R	70.1 +96.1R	73.3 +81.4R	75.8 +70.6R	77.9 +62.2R	79.5 +55.6R														



6D-12 5.3

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q _a) (plf), Factored Shear (q _f) (plf), and Flexibility Factor (F) (10 ⁻⁶ in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
				q _a	q _f	q _a	q _f	q _a	q _f	q _a	q _f	q _a	q _f	q _a	q _f	q _a	q _f	q _a	q _f	q _a	q _f	q _a
12/4	20 ga	4"	q _a	q _f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-95.3 +2172R	-50.5 +1447.6R	-28.1 +1085.5R	-14.6 +868.2R	-5.6 +723.5R	0.9 +620.1R	5.7 +542.5R	9.5 +482.2R	12.5 +434R										
		6"	q _a	q _f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-89.5 +2170R	-43.6 +1445.6R	-20.4 +1083.7R	-6.4 +866.6R	3 +722R	9.7 +618.7R	14.7 +541.3R	18.6 +481.1R	21.8 +432.9R										
		8"	q _a	q _f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-84.9 +2168.1R	-37.6 +1443.6R	-13.6 +1081.7R	1 +864.8R	10.8 +720.2R	17.9 +617.1R	23.2 +539.7R	27.3 +479.6R	30.6 +431.6R										
	12"	q _a	q _f	399	639	399	639	399	639	399	639	399	639	383	617	371	597	362	582	354	570	
		F	-77.8 +2164.8R	-28 +1439.8R	-2.1 +1077.7R	13.8 +860.8R	24.7 +716.4R	32.6 +613.3R	38.5 +536.2R	43.2 +476.2R	47 +428.3R											
	18"	q _a	q _f	399	639	399	639	384	618	336	540	304	489	301	485	281	453	266	428	268	432	
		F	-70.7 +2161R	-17.5 +1434.8R	11.2 +1072.1R	29.3 +854.9R	41.9 +710.3R	51.2 +607.3R	58.4 +530.2R	64.1 +470.4R	68.7 +422.6R											
	24"	q _a	q _f	399	639	368	593	312	502	278	448	256	412	240	386	228	367	218	352	211	339	
		F	-66 +2158.3R	-9.9 +1430.8R	21.2 +1067.3R	41.5 +849.5R	55.8 +704.6R	66.6 +601.4R	75.1 +524.2R	81.9 +464.4R	87.5 +416.6R											
	18 ga	4"	q _a	q _f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-34.3 +1038.3R	-12.4 +691.8R	-1.4 +518.7R	5.3 +414.8R	9.7 +345.6R	12.9 +296.2R	15.3 +259.2R	17.1 +230.3R	18.6 +207.3R										
		6"	q _a	q _f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-29.4 +1036.6R	-6.4 +690.2R	5.2 +517.1R	12.3 +413.4R	17.1 +344.4R	20.5 +295R	23 +258.1R	25.1 +229.3R	26.7 +206.4R										
		8"	q _a	q _f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-25.4 +1034.9R	-1.3 +688.4R	11.1 +515.4R	18.7 +411.8R	23.8 +342.9R	27.5 +293.6R	30.3 +256.8R	32.5 +228.1R	34.3 +205.2R										
	12"	q _a	q _f	703	1125	703	1125	670	1079	625	1006	595	958	574	924	558	898	546	878	536	862	
		F	-19.3 +1032.1R	7 +685.1R	21 +512R	29.8 +408.4R	35.8 +339.5R	40.2 +290.4R	43.6 +253.7R	46.3 +225.2R	48.4 +202.4R											
	18"	q _a	q _f	703	1125	596	959	558	899	491	791	447	719	447	719	419	674	397	639	402	647	
		F	-13.2 +1028.8R	16.1 +680.8R	32.5 +507.2R	43.1 +403.3R	50.7 +334.3R	56.3 +285.2R	60.7 +248.6R	64.2 +220.2R	67.1 +197.5R											
	24"	q _a	q _f	671	1080	521	840	447	719	402	647	372	599	351	565	335	539	323	519	313	503	
		F	-9.1 +1026.5R	22.7 +677.4R	41.2 +503R	53.6 +398.7R	62.7 +329.4R	69.6 +280.1R	75.1 +243.4R	79.6 +214.9R	83.3 +192.3R											
16 ga	4"	q _a	q _f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-11.7 +587.3R	1.2 +391.2R	7.6 +293.2R	11.5 +234.5R	14.1 +195.3R	16 +167.4R	17.4 +146.4R	18.5 +130.2R	19.4 +117.1R											
	6"	q _a	q _f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-7.2 +585.7R	6.5 +389.7R	13.5 +291.8R	17.8 +233.2R	20.7 +194.2R	22.8 +166.4R	24.3 +145.5R	25.6 +129.3R	26.5 +116.3R											
	8"	q _a	q _f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1075	1730	1059	1704	1045	1683	
		F	-3.7 +584.3R	11.1 +388.1R	18.8 +290.3R	23.5 +231.8R	26.7 +192.9R	29.1 +165.1R	30.9 +144.3R	32.2 +128.2R	33.4 +115.3R											
12"	q _a	q _f	1081	1730	997	1606	905	1457	849	1367	812	1308	786	1265	766	1233	751	1209	738	1189		
	F	1.8 +581.7R	18.5 +385.2R	27.6 +287.2R	33.4 +228.7R	37.4 +189.9R	40.4 +162.2R	42.7 +141.6R	44.5 +125.5R	46 +112.8R												
18"	q _a	q _f	1025	1730	788	1269	748	1204	661	1064	603	971	607	977	570	918	542	872	550	886		
	F	7.2 +578.8R	26.6 +381.3R	37.8 +282.9R	45.3 +224.2R	50.7 +185.2R	54.8 +157.6R	58 +137R	60.5 +121.1R	62.7 +108.4R												
24"	q _a	q _f	869	1398	684	1101	591	952	536	862	499	803	472	760	452	728	437	704	425	684		
	F	10.9 +576.7R	32.5 +378.3R	45.6 +279.2R	54.7 +220R	61.4 +180.8R	66.6 +153R	70.8 +132.4R	74.3 +116.4R	77.1 +103.8R												
14 ga	4"	q _a	q _f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F	0.5 +321.6R	7.9 +214.1R	11.6 +160.4R	13.9 +128.3R	15.4 +106.8R	16.5 +91.5R	17.3 +80.1R	18 +71.2R	18.5 +64R											
	6"	q _a	q _f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F	4.4 +320.2R	12.6 +212.8R	16.9 +159.2R	19.5 +127.1R	21.3 +105.8R	22.5 +90.6R	23.5 +79.2R	24.2 +70.4R	24.8 +63.3R											
	8"	q _a	q _f	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	1351	2176	
		F	7.6 +318.9R	16.7 +211.4R	21.5 +157.9R	24.5 +125.9R	26.6 +104.6R	28.1 +89.5R	29.3 +78.2R	30.2 +69.4R	30.9 +62.4R											
12"	q _a	q _f	1351	2176	1351	2176	1246	2006	1177	1894	1130	1820	1097	1767	1073	1727	1053	1696	1038	1671		
	F	12.4 +316.7R	23.3 +208.8R	29.4 +155.1R	33.3 +123.2R	36.1 +102R	38.2 +86.9R	39.8 +75.7R	41 +67.1R	42.1 +60.2R												
18"	q _a	q _f	1351	2176	1062	1709	1021	1644	907	1460	831	1337	840	1353	792	1274	754	1213	768	1237		
	F	17.3 +314.1R	30.5 +205.4R	38.4 +151.3R	43.9 +119.1R	47.8 +97.9R	50.9 +82.8R	53.3 +71.7R	55.3 +63.1R	56.9 +56.3R												
24"	q _a	q _f	1143	1840	912	1468	796	1282	727	1170	681	1096	648	1043	623	1003	604	972	588	947		
	F	20.5 +312.2R	35.7 +202.7R	45.3 +148R	52.2 +115.4R	57.4 +94R	61.4 +78.8R	64.7 +67.6R	67.4 +59R	69.7 +52.2R												

DEEP DECK PANELS

5.3 6D-12

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
12/2	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-22.8	+543.6R	-11.9	+362.4R	-6.4	+271.8R	-3.2	+217.4R	-1	+181.2R	0.6	+155.3R	1.7	+135.9R	2.6	+120.8R	3.4	+108.7R			
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.3	+543.4R	-9.4	+362.2R	-3.9	+271.7R	-0.6	+217.3R	1.6	+181.1R	3.2	+155.2R	4.3	+135.8R	5.3	+120.7R	6	+108.7R			
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18	+543.1R	-6.9	+362.1R	-1.4	+271.5R	2	+217.2R	4.2	+181R	5.7	+155.2R	6.9	+135.8R	7.9	+120.7R	8.6	+108.6R			
	12"	q_a	q_f	399	639	380	611	356	574	342	551	333	536	327	526	322	518	318	511	315	506			
		F	-13.5	+542.5R	-2.1	+361.6R	3.5	+271.2R	6.9	+216.9R	9.2	+180.7R	10.8	+154.9R	12.1	+135.5R	13	+120.5R	13.8	+108.4R				
	18"	q_a	q_f	355	639	284	457	285	458	256	413	238	383	245	394	232	373	222	358	229	368			
		F	-7.2	+541.3R	4.6	+360.6R	10.6	+270.4R	14.2	+216.3R	16.6	+180.2R	18.3	+154.4R	19.6	+135.1R	20.6	+120.1R	21.4	+108.1R				
	24"	q_a	q_f	283	455	236	381	213	343	199	321	190	306	183	295	178	287	174	281	171	276			
		F	-1.6	+540R	11	+359.5R	17.3	+269.4R	21.1	+215.4R	23.7	+179.4R	25.5	+153.8R	26.9	+134.5R	28	+119.5R	28.8	+107.6R				
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-7.7	+260.1R	-2.5	+173.4R	0.1	+130R	1.7	+104R	2.8	+86.7R	3.5	+74.3R	4.1	+65R	4.5	+57.8R	4.9	+52R			
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-5.6	+259.9R	-0.3	+173.3R	2.4	+129.9R	3.9	+103.9R	5	+86.6R	5.8	+74.2R	6.3	+65R	6.8	+57.7R	7.1	+52R			
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	701	1125	692	1114	685	1103	680	1094	675	1087		
			F	-3.5	+259.7R	1.8	+173.1R	4.5	+129.8R	6.1	+103.8R	7.2	+86.5R	8	+74.2R	8.6	+64.9R	9	+57.7R	9.4	+51.9R			
	12"	q_a	q_f	629	1012	568	914	537	865	519	836	507	816	497	801	490	788	484	779	479	771			
		F	0.3	+259.1R	6	+172.7R	8.8	+129.5R	10.5	+103.6R	11.6	+86.3R	12.4	+74R	13	+64.7R	13.5	+57.5R	13.8	+51.8R				
	18"	q_a	q_f	517	1012	419	675	426	686	385	620	358	577	371	597	352	567	338	544	349	562			
		F	5.7	+258.1R	11.8	+171.9R	14.9	+128.8R	16.7	+103R	17.9	+85.8R	18.8	+73.5R	19.5	+64.3R	20	+57.2R	20.4	+51.5R				
	24"	q_a	q_f	406	653	345	555	314	506	296	477	284	457	275	443	269	433	264	424	260	418			
		F	10.6	+256.9R	17.3	+170.9R	20.6	+128R	22.7	+102.3R	24.1	+85.2R	25.1	+73R	25.8	+63.8R	26.4	+56.7R	26.8	+51R				
16 ga	4"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F	-2.1	+147.2R	0.9	+98.2R	2.3	+73.6R	3.2	+58.9R	3.8	+49.1R	4.3	+42.1R	4.6	+36.8R	4.8	+32.7R	5	+29.4R				
	6"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F	-0.2	+147.1R	2.8	+98.1R	4.3	+73.5R	5.2	+58.8R	5.8	+49R	6.3	+42R	6.6	+36.8R	6.9	+32.7R	7.1	+29.4R				
	8"	q_a	q_f	996	1603	996	1603	994	1600	971	1564	957	1540	946	1523	938	1510	931	1500	926	1492			
		F	1.6	+146.9R	4.7	+97.9R	6.3	+73.4R	7.2	+58.7R	7.8	+48.9R	8.3	+42R	8.6	+36.7R	8.9	+32.6R	9.1	+29.4R				
12"	q_a	q_f	850	1369	776	1250	736	1184	711	1144	694	1117	682	1098	673	1083	666	1072	660	1063				
	F	5.1	+146.4R	8.4	+97.6R	10	+73.1R	11	+58.5R	11.7	+48.7R	12.2	+41.8R	12.5	+36.5R	12.8	+32.5R	13	+29.2R					
18"	q_a	q_f	694	1369	567	913	582	937	528	851	493	793	512	824	487	784	468	753	484	779				
	F	9.9	+145.5R	13.6	+96.8R	15.5	+72.5R	16.6	+58R	17.4	+48.3R	17.9	+41.4R	18.3	+36.2R	18.6	+32.2R	18.9	+29R					
24"	q_a	q_f	537	864	462	744	425	685	403	649	388	625	377	608	369	595	363	585	358	577				
	F	14.2	+144.5R	18.5	+96R	20.6	+71.8R	22	+57.3R	22.9	+47.7R	23.5	+40.9R	24	+35.8R	24.3	+31.8R	24.7	+28.6R					
14 ga	4"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	0.8	+80.8R	2.5	+53.8R	3.3	+40.4R	3.8	+32.3R	4.1	+26.9R	4.4	+23.1R	4.5	+20.2R	4.7	+17.9R	4.8	+16.2R				
	6"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	2.5	+80.6R	4.2	+53.8R	5	+40.3R	5.6	+32.2R	5.9	+26.9R	6.1	+23R	6.3	+20.2R	6.5	+17.9R	6.6	+16.1R				
	8"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	4.1	+80.5R	5.9	+53.6R	6.8	+40.2R	7.3	+32.2R	7.7	+26.8R	7.9	+23R	8.1	+20.1R	8.2	+17.9R	8.4	+16.1R				
12"	q_a	q_f	1156	1860	1061	1709	1013	1631	983	1583	964	1551	949	1529	939	1511	930	1498	924	1487				
	F	7.2	+80.1R	9.1	+53.3R	10.1	+40R	10.7	+32R	11.1	+26.6R	11.4	+22.8R	11.6	+20R	11.8	+17.7R	11.9	+16R					
18"	q_a	q_f	948	1860	782	1258	811	1306	739	1189	691	1112	720	1160	687	1105	660	1063	682	1097				
	F	11.5	+79.2R	13.8	+52.7R	14.9	+39.4R	15.7	+31.5R	16.1	+26.2R	16.5	+22.5R	16.7	+19.7R	16.9	+17.5R	17.1	+15.7R					
24"	q_a	q_f	723	1164	632	1017	586	944	559	900	541	871	528	850	518	834	510	822	504	812				
	F	15.3	+78.3R	18.1	+51.9R	19.5	+38.8R	20.4	+30.9R	21	+25.7R	21.4	+22R	21.7	+19.3R	22	+17.1R	22.2	+15.4R					



PNEUTEK

6D-12 5.3

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
12/4	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-23 +543.4R	-12 +362.3R	-6.5 +271.7R	-3.2 +217.4R	-1.1 +181.1R	0.5 +155.3R	1.7 +135.8R	2.6 +120.7R	3.3 +108.7R										
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.7 +543.1R	-9.6 +362R	-4.1 +271.5R	-0.8 +217.2R	1.5 +181R	3.1 +155.1R	4.2 +135.7R	5.2 +120.7R	5.9 +108.6R										
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18.6 +542.7R	-7.3 +361.7R	-1.7 +271.3R	1.7 +217R	3.9 +180.8R	5.5 +155R	6.8 +135.6R	7.7 +120.5R	8.5 +108.5R										
	12"	q_a	q_f	399	639	399	639	399	639	399	639	393	633	378	608	367	590	358	576	351	564	
		F	-14.8 +541.8R	-3.1 +361R	2.8 +270.6R	6.3 +216.5R	8.7 +180.3R	10.4 +154.6R	11.7 +135.2R	12.7 +120.2R	13.4 +108.2R											
	18"	q_a	q_f	399	639	399	639	375	603	328	529	298	479	296	477	277	446	262	422	265	426	
		F	-9.8 +540.4R	2.7 +359.7R	9 +269.5R	12.9 +215.4R	15.5 +179.4R	17.3 +153.7R	18.7 +134.4R	19.8 +119.5R	20.7 +107.5R											
	24"	q_a	q_f	399	639	356	574	303	488	271	437	250	402	235	378	223	359	214	345	207	334	
		F	-5.6 +538.9R	7.8 +358.2R	14.7 +268.1R	18.9 +214.2R	21.8 +178.3R	23.9 +152.7R	25.4 +133.5R	26.7 +118.6R	27.6 +106.7R											
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-7.9 +259.9R	-2.6 +173.3R	0.1 +130R	1.7 +104R	2.7 +86.6R	3.5 +74.3R	4 +65R	4.5 +57.8R	4.8 +52R										
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-5.9 +259.7R	-0.5 +173.1R	2.2 +129.8R	3.8 +103.8R	4.9 +86.5R	5.7 +74.2R	6.2 +64.9R	6.7 +57.7R	7.1 +51.9R										
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-4.1 +259.3R	1.5 +172.8R	4.2 +129.6R	5.9 +103.6R	7 +86.4R	7.8 +74R	8.4 +64.8R	8.9 +57.6R	9.3 +51.8R										
	12"	q_a	q_f	703	1125	703	1125	655	1055	613	987	585	942	565	910	551	886	539	868	530	853	
		F	-0.8 +258.6R	5.1 +172.2R	8.1 +129R	9.9 +103.2R	11.1 +86R	12 +73.7R	12.7 +64.4R	13.2 +57.3R	13.6 +51.5R											
	18"	q_a	q_f	703	1125	576	927	544	875	479	772	437	703	438	705	411	662	390	628	396	637	
		F	3.5 +257.3R	10.1 +171R	13.5 +128R	15.6 +102.3R	17 +85.1R	18 +72.9R	18.7 +63.8R	19.3 +56.7R	19.8 +51R											
	24"	q_a	q_f	641	1032	502	808	432	696	390	628	362	583	342	551	328	527	316	509	307	494	
		F	7.1 +256R	14.5 +169.8R	18.4 +126.8R	20.8 +101.2R	22.4 +84.2R	23.6 +72R	24.5 +62.9R	25.2 +55.9R	25.8 +50.2R											
16 ga	4"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F	-2.3 +147.1R	0.8 +98.1R	2.3 +73.6R	3.2 +58.8R	3.8 +49R	4.2 +42R	4.5 +36.8R	4.8 +32.7R	5 +29.4R											
	6"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F	-0.5 +146.9R	2.6 +97.9R	4.2 +73.4R	5.1 +58.7R	5.7 +48.9R	6.2 +41.9R	6.5 +36.7R	6.8 +32.6R	7 +29.4R											
	8"	q_a	q_f	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	996	1603	
		F	1.1 +146.6R	4.4 +97.7R	6 +73.2R	7 +58.6R	7.6 +48.8R	8.1 +41.8R	8.5 +36.6R	8.7 +32.5R	9 +29.3R											
12"	q_a	q_f	996	1603	968	1558	883	1421	832	1339	798	1284	773	1245	755	1216	741	1193	730	1175		
	F	4.1 +145.9R	7.6 +97.1R	9.5 +72.7R	10.6 +58.1R	11.3 +48.4R	11.8 +41.5R	12.2 +36.3R	12.5 +32.3R	12.8 +29R												
18"	q_a	q_f	981	1603	759	1222	726	1169	643	1036	589	948	594	956	559	900	532	856	541	872		
	F	7.9 +144.8R	12.1 +96.1R	14.3 +71.8R	15.6 +57.3R	16.5 +47.7R	17.2 +40.8R	17.7 +35.7R	18.1 +31.7R	18.4 +28.5R												
24"	q_a	q_f	824	1327	654	1053	569	916	518	834	484	779	460	740	441	711	427	688	416	670		
	F	11.1 +143.6R	16 +94.9R	18.6 +70.8R	20.3 +56.4R	21.4 +46.8R	22.2 +40R	22.8 +35R	23.3 +31R	23.7 +27.9R												
14 ga	4"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	0.7 +80.7R	2.4 +53.8R	3.2 +40.3R	3.7 +32.3R	4.1 +26.9R	4.3 +23R	4.5 +20.2R	4.6 +17.9R	4.8 +16.1R											
	6"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	2.2 +80.5R	4 +53.6R	4.9 +40.2R	5.4 +32.2R	5.8 +26.8R	6.1 +23R	6.3 +20.1R	6.4 +17.9R	6.5 +16.1R											
	8"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	3.7 +80.2R	5.6 +53.4R	6.5 +40R	7.1 +32R	7.5 +26.7R	7.8 +22.9R	8 +20R	8.1 +17.8R	8.3 +16R											
12"	q_a	q_f	1220	1964	1220	1964	1212	1951	1149	1851	1108	1784	1078	1736	1056	1700	1038	1672	1024	1649		
	F	6.3 +79.6R	8.5 +52.9R	9.6 +39.6R	10.3 +31.6R	10.8 +26.3R	11.1 +22.6R	11.3 +19.7R	11.5 +17.5R	11.7 +15.8R												
18"	q_a	q_f	1220	1964	1017	1637	987	1590	880	1416	808	1301	821	1322	775	1247	739	1189	755	1215		
	F	9.7 +78.6R	12.4 +52R	13.9 +38.8R	14.8 +30.9R	15.4 +25.7R	15.8 +22R	16.1 +19.2R	16.4 +17.1R	16.6 +15.3R												
24"	q_a	q_f	1075	1731	867	1395	762	1228	700	1127	658	1060	628	1012	606	976	589	948	575	925		
	F	12.6 +77.6R	15.9 +51R	17.8 +37.9R	18.9 +30.1R	19.7 +24.9R	20.3 +21.3R	20.7 +18.5R	21.1 +16.4R	21.4 +14.8R												

5.3 6D-12

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/2	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-22.8 +543.6R	-11.9 +362.4R	-6.4 +271.8R	-3.2 +217.4R	-1 +181.2R	0.6 +155.3R	1.7 +135.9R	2.6 +120.8R	3.4 +108.7R												
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.3 +543.4R	-9.4 +362.2R	-3.9 +271.7R	-0.6 +217.3R	1.6 +181.1R	3.2 +155.2R	4.3 +135.8R	5.3 +120.7R	6 +108.7R												
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18 +543.1R	-6.9 +362.1R	-1.4 +271.5R	2 +217.2R	4.2 +181R	5.7 +155.2R	6.9 +135.8R	7.9 +120.7R	8.6 +108.6R												
	12"	q_a	q_f	399	639	387	623	362	583	347	558	337	542	330	531	324	522	320	515	317	510	317	510	
		F	-13.5 +542.5R	-2.1 +361.6R	3.5 +271.2R	6.9 +216.9R	9.2 +180.7R	10.8 +154.9R	12.1 +135.5R	13 +120.5R	13.8 +108.4R													
	18"	q_a	q_f	366	639	291	469	290	467	261	420	241	388	248	399	235	378	225	362	231	372	231	372	
		F	-7.2 +541.3R	4.6 +360.6R	10.6 +270.4R	14.2 +216.3R	16.6 +180.2R	18.3 +154.4R	19.6 +135.1R	20.6 +120.1R	21.4 +108.1R													
	24"	q_a	q_f	294	473	244	392	219	352	204	328	194	312	186	300	181	291	177	285	173	279	173	279	
		F	-1.6 +540R	11 +359.5R	17.3 +269.4R	21.1 +215.4R	23.7 +179.4R	25.5 +153.8R	26.9 +134.5R	28 +119.5R	28.8 +107.6R													
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-7.7 +260.1R	-2.5 +173.4R	0.1 +130R	1.7 +104R	2.8 +86.7R	3.5 +74.3R	4.1 +65R	4.5 +57.8R	4.9 +52R												
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-5.6 +259.9R	-0.3 +173.3R	2.4 +129.9R	3.9 +103.9R	5 +86.6R	5.8 +74.2R	6.3 +65R	6.8 +57.7R	7.1 +52R												
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	694	1117	687	1106	681	1097	677	1090	677	1090	677	1090
			F	-3.5 +259.7R	1.8 +173.1R	4.5 +129.8R	6.1 +103.8R	7.2 +86.5R	8 +74.2R	8.6 +64.9R	9 +57.7R	9.4 +51.9R												
	12"	q_a	q_f	631	1017	570	917	539	867	520	838	508	818	499	803	491	790	485	781	480	773	480	773	
		F	0.3 +259.1R	6 +172.7R	8.8 +129.5R	10.5 +103.6R	11.6 +86.3R	12.4 +74R	13 +64.7R	13.5 +57.5R	13.8 +51.8R													
	18"	q_a	q_f	520	1017	421	678	427	688	386	622	359	578	372	598	353	568	339	545	349	562	349	562	
		F	5.7 +258.1R	11.8 +171.9R	14.9 +128.8R	16.7 +103R	17.9 +85.8R	18.8 +73.5R	19.5 +64.3R	20 +57.2R	20.4 +51.5R													
	24"	q_a	q_f	408	657	347	558	316	508	297	478	285	459	276	444	269	434	264	425	260	419	260	419	
		F	10.6 +256.9R	17.3 +170.9R	20.6 +128R	22.7 +102.3R	24.1 +85.2R	25.1 +73R	25.8 +63.8R	26.4 +56.7R	26.8 +51R													
16 ga	4"	q_a	q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	
		F	-2.1 +147.2R	0.9 +98.2R	2.3 +73.6R	3.2 +58.9R	3.8 +49.1R	4.3 +42.1R	4.6 +36.8R	4.8 +32.7R	5 +29.4R													
	6"	q_a	q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	
		F	-0.2 +147.1R	2.8 +98.1R	4.3 +73.5R	5.2 +58.8R	5.8 +49R	6.3 +42R	6.6 +36.8R	6.9 +32.7R	7.1 +29.4R													
	8"	q_a	q_f	965	1553	965	1553	965	1553	964	1552	950	1529	940	1513	932	1500	926	1490	921	1483	921	1483	
		F	1.6 +146.9R	4.7 +97.9R	6.3 +73.4R	7.2 +58.7R	7.8 +48.9R	8.3 +42R	8.6 +36.7R	8.9 +32.6R	9.1 +29.4R													
12"	q_a	q_f	844	1358	769	1239	730	1175	706	1136	690	1110	678	1091	669	1077	662	1066	657	1058	657	1058		
	F	5.1 +146.4R	8.4 +97.6R	10 +73.1R	11 +58.5R	11.7 +48.7R	12.2 +41.8R	12.5 +36.5R	12.8 +32.5R	13 +29.2R														
18"	q_a	q_f	687	1358	562	905	579	932	526	846	490	789	510	821	485	781	466	751	482	777	482	777		
	F	9.9 +145.5R	13.6 +96.8R	15.5 +72.5R	16.6 +58R	17.4 +48.3R	17.9 +41.4R	18.3 +36.2R	18.6 +32.2R	18.9 +29R														
24"	q_a	q_f	530	853	458	737	422	679	400	644	386	621	375	605	368	592	362	582	357	575	357	575		
	F	14.2 +144.5R	18.5 +96R	20.6 +71.8R	22 +57.3R	22.9 +47.7R	23.5 +40.9R	24 +35.8R	24.3 +31.8R	24.7 +28.6R														
14 ga	4"	q_a	q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	
		F	0.8 +80.8R	2.5 +53.8R	3.3 +40.4R	3.8 +32.3R	4.1 +26.9R	4.4 +23.1R	4.5 +20.2R	4.7 +17.9R	4.8 +16.2R													
	6"	q_a	q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	
		F	2.5 +80.6R	4.2 +53.8R	5 +40.3R	5.6 +32.2R	5.9 +26.9R	6.1 +23R	6.3 +20.2R	6.5 +17.9R	6.6 +16.1R													
	8"	q_a	q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	
		F	4.1 +80.5R	5.9 +53.6R	6.8 +40.2R	7.3 +32.2R	7.7 +26.8R	7.9 +23R	8.1 +20.1R	8.2 +17.9R	8.4 +16.1R													
12"	q_a	q_f	1123	1807	1037	1670	993	1599	967	1556	949	1527	936	1507	926	1491	918	1479	912	1469	912	1469		
	F	7.2 +80.1R	9.1 +53.3R	10.1 +40R	10.7 +32R	11.1 +26.6R	11.4 +22.8R	11.6 +20R	11.8 +17.7R	11.9 +16R														
18"	q_a	q_f	928	1807	768	1237	801	1290	731	1177	684	1101	711	1145	679	1093	653	1052	674	1085	674	1085		
	F	11.5 +79.2R	13.8 +52.7R	14.9 +39.4R	15.7 +31.5R	16.1 +26.2R	16.5 +22.5R	16.7 +19.7R	16.9 +17.5R	17.1 +15.7R														
24"	q_a	q_f	703	1132	618	996	576	928	551	887	534	860	522	840	513	826	506	814	500	805	500	805		
	F	15.3 +78.3R	18.1 +51.9R	19.5 +38.8R	20.4 +30.9R	21 +25.7R	21.4 +22R	21.7 +19.3R	22 +17.1R	22.2 +15.4R														

6D-12 5.3

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



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Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																				
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"			
			q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f		
12/4	20 ga	4"	q_a q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-23	+543.4R	-12	+362.3R	-6.5	+271.7R	-3.2	+217.4R	-1.1	+181.1R	0.5	+155.3R	1.7	+135.8R	2.6	+120.7R	3.3	+108.7R		
		6"	q_a q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.7	+543.1R	-9.6	+362R	-4.1	+271.5R	-0.8	+217.2R	1.5	+181R	3.1	+155.1R	4.2	+135.7R	5.2	+120.7R	5.9	+108.6R		
		8"	q_a q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18.6	+542.7R	-7.3	+361.7R	-1.7	+271.3R	1.7	+217R	3.9	+180.8R	5.5	+155R	6.8	+135.6R	7.7	+120.5R	8.5	+108.5R		
	12"	q_a q_f	399	639	399	639	399	639	399	639	399	639	385	620	373	600	363	585	356	573			
		F	-14.8	+541.8R	-3.1	+361R	2.8	+270.6R	6.3	+216.5R	8.7	+180.3R	10.4	+154.6R	11.7	+135.2R	12.7	+120.2R	13.4	+108.2R			
	18"	q_a q_f	399	639	399	639	387	624	339	545	306	493	303	488	283	456	268	431	270	434			
		F	-9.8	+540.4R	2.7	+359.7R	9	+269.5R	12.9	+215.4R	15.5	+179.4R	17.3	+153.7R	18.7	+134.4R	19.8	+119.5R	20.7	+107.5R			
	24"	q_a q_f	399	639	373	601	316	508	281	453	258	416	242	389	230	370	220	354	212	342			
		F	-5.6	+538.9R	7.8	+358.2R	14.7	+268.1R	18.9	+214.2R	21.8	+178.3R	23.9	+152.7R	25.4	+133.5R	26.7	+118.6R	27.6	+106.7R			
	18 ga	4"	q_a q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-7.9	+259.9R	-2.6	+173.3R	0.1	+130R	1.7	+104R	2.7	+86.6R	3.5	+74.3R	4	+65R	4.5	+57.8R	4.8	+52R		
		6"	q_a q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-5.9	+259.7R	-0.5	+173.1R	2.2	+129.8R	3.8	+103.8R	4.9	+86.5R	5.7	+74.2R	6.2	+64.9R	6.7	+57.7R	7.1	+51.9R		
		8"	q_a q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-4.1	+259.3R	1.5	+172.8R	4.2	+129.6R	5.9	+103.6R	7	+86.4R	7.8	+74R	8.4	+64.8R	8.9	+57.6R	9.3	+51.8R		
	12"	q_a q_f	703	1125	703	1125	658	1060	616	991	588	946	567	913	552	889	540	870	531	855			
		F	-0.8	+258.6R	5.1	+172.2R	8.1	+129R	9.9	+103.2R	11.1	+86R	12	+73.7R	12.7	+64.4R	13.2	+57.3R	13.6	+51.5R			
	18"	q_a q_f	703	1125	580	934	547	880	482	776	439	707	440	708	413	665	392	631	397	639			
		F	3.5	+257.3R	10.1	+171R	13.5	+128R	15.6	+102.3R	17	+85.1R	18	+72.9R	18.7	+63.8R	19.3	+56.7R	19.8	+51R			
	24"	q_a q_f	647	1042	506	815	435	701	393	632	365	587	344	554	329	530	317	511	308	496			
		F	7.1	+256R	14.5	+169.8R	18.4	+126.8R	20.8	+101.2R	22.4	+84.2R	23.6	+72R	24.5	+62.9R	25.2	+55.9R	25.8	+50.2R			
16 ga	4"	q_a q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	-2.3	+147.1R	0.8	+98.1R	2.3	+73.6R	3.2	+58.8R	3.8	+49R	4.2	+42R	4.5	+36.8R	4.8	+32.7R	5	+29.4R			
	6"	q_a q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	-0.5	+146.9R	2.6	+97.9R	4.2	+73.4R	5.1	+58.7R	5.7	+48.9R	6.2	+41.9R	6.5	+36.7R	6.8	+32.6R	7	+29.4R			
	8"	q_a q_f	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553	965	1553			
		F	1.1	+146.6R	4.4	+97.7R	6	+73.2R	7	+58.6R	7.6	+48.8R	8.1	+41.8R	8.5	+36.6R	8.7	+32.5R	9	+29.3R			
12"	q_a q_f	965	1553	957	1541	875	1409	825	1329	792	1276	769	1238	751	1209	737	1187	726	1170				
	F	4.1	+145.9R	7.6	+97.1R	9.5	+72.7R	10.6	+58.1R	11.3	+48.4R	11.8	+41.5R	12.2	+36.3R	12.5	+32.3R	12.8	+29R				
18"	q_a q_f	965	1553	748	1205	718	1156	637	1026	583	939	590	949	555	894	528	851	538	866				
	F	7.9	+144.8R	12.1	+96.1R	14.3	+71.8R	15.6	+57.3R	16.5	+47.7R	17.2	+40.8R	17.7	+35.7R	18.1	+31.7R	18.4	+28.5R				
24"	q_a q_f	809	1302	644	1036	561	904	512	824	479	771	455	733	437	704	424	682	413	664				
	F	11.1	+143.6R	16	+94.9R	18.6	+70.8R	20.3	+56.4R	21.4	+46.8R	22.2	+40R	22.8	+35R	23.3	+31R	23.7	+27.9R				
14 ga	4"	q_a q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	0.7	+80.7R	2.4	+53.8R	3.2	+40.3R	3.7	+32.3R	4.1	+26.9R	4.3	+23R	4.5	+20.2R	4.6	+17.9R	4.8	+16.1R			
	6"	q_a q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	2.2	+80.5R	4	+53.6R	4.9	+40.2R	5.4	+32.2R	5.8	+26.8R	6.1	+23R	6.3	+20.1R	6.4	+17.9R	6.5	+16.1R			
	8"	q_a q_f	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820	1130	1820			
		F	3.7	+80.2R	5.6	+53.4R	6.5	+40R	7.1	+32R	7.5	+26.7R	7.8	+22.9R	8	+20R	8.1	+17.8R	8.3	+16R			
12"	q_a q_f	1130	1820	1130	1820	1130	1820	1130	1820	1093	1759	1065	1714	1044	1680	1026	1653	1013	1630				
	F	6.3	+79.6R	8.5	+52.9R	9.6	+39.6R	10.3	+31.6R	10.8	+26.3R	11.1	+22.6R	11.3	+19.7R	11.5	+17.5R	11.7	+15.8R				
18"	q_a q_f	1130	1820	986	1588	964	1553	861	1387	793	1276	808	1301	763	1229	728	1173	745	1200				
	F	9.7	+78.6R	12.4	+52R	13.9	+38.8R	14.8	+30.9R	15.4	+25.7R	15.8	+22R	16.1	+19.2R	16.4	+17.1R	16.6	+15.3R				
24"	q_a q_f	1030	1658	836	1346	740	1191	682	1097	643	1035	615	991	595	957	578	931	566	911				
	F	12.6	+77.6R	15.9	+51R	17.8	+37.9R	18.9	+30.1R	19.7	+24.9R	20.3	+21.3R	20.7	+18.5R	21.1	+16.4R	21.4	+14.8R				

5.3 6D-12

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
				q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	
12/2	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-22.8 +543.6R	-11.9 +362.4R	-6.4 +271.8R	-3.2 +217.4R	-1 +181.2R	0.6 +155.3R	1.7 +135.9R	2.6 +120.8R	3.4 +108.7R												
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.3 +543.4R	-9.4 +362.2R	-3.9 +271.7R	-0.6 +217.3R	1.6 +181.1R	3.2 +155.2R	4.3 +135.8R	5.3 +120.7R	6 +108.7R												
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18 +543.1R	-6.9 +362.1R	-1.4 +271.5R	2 +217.2R	4.2 +181R	5.7 +155.2R	6.9 +135.8R	7.9 +120.7R	8.6 +108.6R												
	12"	q_a	q_f	399	639	398	639	370	596	353	569	342	551	334	538	328	529	324	521	320	515			
		F	-13.5 +542.5R	-2.1 +361.6R	3.5 +271.2R	6.9 +216.9R	9.2 +180.7R	10.8 +154.9R	12.1 +135.5R	13 +120.5R	13.8 +108.4R													
	18"	q_a	q_f	382	639	302	487	298	480	267	430	247	397	252	406	239	384	228	367	234	377			
		F	-7.2 +541.3R	4.6 +360.6R	10.6 +270.4R	14.2 +216.3R	16.6 +180.2R	18.3 +154.4R	19.6 +135.1R	20.6 +120.1R	21.4 +108.1R													
	24"	q_a	q_f	310	499	254	410	227	365	210	338	199	320	191	307	185	298	180	290	177	284			
		F	-1.6 +540R	11 +359.5R	17.3 +269.4R	21.1 +215.4R	23.7 +179.4R	25.5 +153.8R	26.9 +134.5R	28 +119.5R	28.8 +107.6R													
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-7.7 +260.1R	-2.5 +173.4R	0.1 +130R	1.7 +104R	2.8 +86.7R	3.5 +74.3R	4.1 +65R	4.5 +57.8R	4.9 +52R												
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-5.6 +259.9R	-0.3 +173.3R	2.4 +129.9R	3.9 +103.9R	5 +86.6R	5.8 +74.2R	6.3 +65R	6.8 +57.7R	7.1 +52R												
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	700	1125		
			F	-3.5 +259.7R	1.8 +173.1R	4.5 +129.8R	6.1 +103.8R	7.2 +86.5R	8 +74.2R	8.6 +64.9R	9 +57.7R	9.4 +51.9R												
	12"	q_a	q_f	676	1088	599	965	561	903	538	866	523	841	512	824	503	811	497	800	492	792			
		F	0.3 +259.1R	6 +172.7R	8.8 +129.5R	10.5 +103.6R	11.6 +86.3R	12.4 +74R	13 +64.7R	13.5 +57.5R	13.8 +51.8R													
	18"	q_a	q_f	564	1088	450	725	449	723	404	651	374	602	384	619	364	586	348	561	358	577			
		F	5.7 +258.1R	11.8 +171.9R	14.9 +128.8R	16.7 +103R	17.9 +85.8R	18.8 +73.5R	19.5 +64.3R	20 +57.2R	20.4 +51.5R													
	24"	q_a	q_f	453	729	376	606	338	544	315	507	300	482	289	465	280	452	274	441	269	433			
		F	10.6 +256.9R	17.3 +170.9R	20.6 +128R	22.7 +102.3R	24.1 +85.2R	25.1 +73R	25.8 +63.8R	26.4 +56.7R	26.8 +51R													
16 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730			
		F	-2.1 +147.2R	0.9 +98.2R	2.3 +73.6R	3.2 +58.9R	3.8 +49.1R	4.3 +42.1R	4.6 +36.8R	4.8 +32.7R	5 +29.4R													
	6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730			
		F	-0.2 +147.1R	2.8 +98.1R	4.3 +73.5R	5.2 +58.8R	5.8 +49R	6.3 +42R	6.6 +36.8R	6.9 +32.7R	7.1 +29.4R													
	8"	q_a	q_f	1081	1730	1081	1730	1057	1702	1027	1653	1006	1620	991	1596	980	1578	972	1564	965	1553			
		F	1.6 +146.9R	4.7 +97.9R	6.3 +73.4R	7.2 +58.7R	7.8 +48.9R	8.3 +42R	8.6 +36.7R	8.9 +32.6R	9.1 +29.4R													
12"	q_a	q_f	910	1465	816	1313	769	1238	740	1192	722	1162	708	1140	698	1124	690	1111	683	1100				
	F	5.1 +146.4R	8.4 +97.6R	10 +73.1R	11 +58.5R	11.7 +48.7R	12.2 +41.8R	12.5 +36.5R	12.8 +32.5R	13 +29.2R														
18"	q_a	q_f	753	1465	607	977	612	985	552	889	512	825	529	852	502	808	481	775	496	798				
	F	9.9 +145.5R	13.6 +96.8R	15.5 +72.5R	16.6 +58R	17.4 +48.3R	17.9 +41.4R	18.3 +36.2R	18.6 +32.2R	18.9 +29R														
24"	q_a	q_f	596	960	502	808	455	733	427	687	408	657	394	635	384	619	377	606	370	596				
	F	14.2 +144.5R	18.5 +96R	20.6 +71.8R	22 +57.3R	22.9 +47.7R	23.5 +40.9R	24 +35.8R	24.3 +31.8R	24.7 +28.6R														
14 ga	4"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475			
		F	0.8 +80.8R	2.5 +53.8R	3.3 +40.4R	3.8 +32.3R	4.1 +26.9R	4.4 +23.1R	4.5 +20.2R	4.7 +17.9R	4.8 +16.2R													
	6"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475			
		F	2.5 +80.6R	4.2 +53.8R	5 +40.3R	5.6 +32.2R	5.9 +26.9R	6.1 +23R	6.3 +20.2R	6.5 +17.9R	6.6 +16.1R													
	8"	q_a	q_f	1537	2475	1510	2432	1453	2339	1417	2282	1394	2244	1377	2217	1364	2196	1354	2180	1346	2167			
		F	4.1 +80.5R	5.9 +53.6R	6.8 +40.2R	7.3 +32.2R	7.7 +26.8R	7.9 +23R	8.1 +20.1R	8.2 +17.9R	8.4 +16.1R													
12"	q_a	q_f	1244	2002	1129	1817	1071	1725	1036	1667	1009	1625	990	1595	976	1572	965	1554	956	1540				
	F	7.2 +80.1R	9.1 +53.3R	10.1 +40R	10.7 +32R	11.1 +26.6R	11.4 +22.8R	11.6 +20R	11.8 +17.7R	11.9 +16R														
18"	q_a	q_f	1019	2002	829	1335	847	1363	767	1235	714	1150	741	1193	704	1134	676	1088	698	1124				
	F	11.5 +79.2R	13.8 +52.7R	14.9 +39.4R	15.7 +31.5R	16.1 +26.2R	16.5 +22.5R	16.7 +19.7R	16.9 +17.5R	17.1 +15.7R														
24"	q_a	q_f	794	1278	679	1094	622	1001	587	946	564	909	548	882	536	862	526	847	518	835				
	F	15.3 +78.3R	18.1 +51.9R	19.5 +38.8R	20.4 +30.9R	21 +25.7R	21.4 +22R	21.7 +19.3R	22 +17.1R	22.2 +15.4R														



PNEUTEK

6D-12 5.3

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
				q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a
12/4	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-23 +543.4R	-12 +362.3R	-6.5 +271.7R	-3.2 +217.4R	-1.1 +181.1R	0.5 +155.3R	1.7 +135.8R	2.6 +120.7R	3.3 +108.7R										
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.7 +543.1R	-9.6 +362R	-4.1 +271.5R	-0.8 +217.2R	1.5 +181R	3.1 +155.1R	4.2 +135.7R	5.2 +120.7R	5.9 +108.6R										
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18.6 +542.7R	-7.3 +361.7R	-1.7 +271.3R	1.7 +217R	3.9 +180.8R	5.5 +155R	6.8 +135.6R	7.7 +120.5R	8.5 +108.5R										
	12"	q_a	q_f	399	639	399	639	399	639	399	639	396	637	382	615	371	598	363	584			
		F	-14.8 +541.8R	-3.1 +361R	2.8 +270.6R	6.3 +216.5R	8.7 +180.3R	10.4 +154.6R	11.7 +135.2R	12.7 +120.2R	13.4 +108.2R											
	18"	q_a	q_f	399	639	399	639	399	639	353	569	318	512	314	505	292	471	276	444	277	446	
		F	-9.8 +540.4R	2.7 +359.7R	9 +269.5R	12.9 +215.4R	15.5 +179.4R	17.3 +153.7R	18.7 +134.4R	19.8 +119.5R	20.7 +107.5R											
	24"	q_a	q_f	399	639	398	639	334	538	296	477	271	436	252	406	239	384	228	367	220	354	
		F	-5.6 +538.9R	7.8 +358.2R	14.7 +268.1R	18.9 +214.2R	21.8 +178.3R	23.9 +152.7R	25.4 +133.5R	26.7 +118.6R	27.6 +106.7R											
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-7.9 +259.9R	-2.6 +173.3R	0.1 +130R	1.7 +104R	2.7 +86.6R	3.5 +74.3R	4 +65R	4.5 +57.8R	4.8 +52R										
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-5.9 +259.7R	-0.5 +173.1R	2.2 +129.8R	3.8 +103.8R	4.9 +86.5R	5.7 +74.2R	6.2 +64.9R	6.7 +57.7R	7.1 +51.9R										
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-4.1 +259.3R	1.5 +172.8R	4.2 +129.6R	5.9 +103.6R	7 +86.4R	7.8 +74R	8.4 +64.8R	8.9 +57.6R	9.3 +51.8R										
	12"	q_a	q_f	703	1125	703	1125	703	1125	656	1057	621	1000	596	960	578	930	563	906	551	887	
		F	-0.8 +258.6R	5.1 +172.2R	8.1 +129R	9.9 +103.2R	11.1 +86R	12 +73.7R	12.7 +64.4R	13.2 +57.3R	13.6 +51.5R											
	18"	q_a	q_f	703	1125	648	1043	597	962	523	841	473	761	469	755	438	705	414	667	417	672	
		F	3.5 +257.3R	10.1 +171R	13.5 +128R	15.6 +102.3R	17 +85.1R	18 +72.9R	18.7 +63.8R	19.3 +56.7R	19.8 +51R											
	24"	q_a	q_f	703	1125	574	923	486	782	433	698	398	641	373	601	354	571	340	547	328	528	
		F	7.1 +256R	14.5 +169.8R	18.4 +126.8R	20.8 +101.2R	22.4 +84.2R	23.6 +72R	24.5 +62.9R	25.2 +55.9R	25.8 +50.2R											
16 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-2.3 +147.1R	0.8 +98.1R	2.3 +73.6R	3.2 +58.8R	3.8 +49R	4.2 +42R	4.5 +36.8R	4.8 +32.7R	5 +29.4R											
	6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-0.5 +146.9R	2.6 +97.9R	4.2 +73.4R	5.1 +58.7R	5.7 +48.9R	6.2 +41.9R	6.5 +36.7R	6.8 +32.6R	7 +29.4R											
	8"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1071	1724	
		F	1.1 +146.6R	4.4 +97.7R	6 +73.2R	7 +58.6R	7.6 +48.8R	8.1 +41.8R	8.5 +36.6R	8.7 +32.5R	9 +29.3R											
12"	q_a	q_f	1081	1730	1059	1705	951	1531	886	1427	843	1357	812	1308	789	1271	771	1242	757	1219		
	F	4.1 +145.9R	7.6 +97.1R	9.5 +72.7R	10.6 +58.1R	11.3 +48.4R	11.8 +41.5R	12.2 +36.3R	12.5 +32.3R	12.8 +29R												
18"	q_a	q_f	1081	1730	850	1368	794	1279	698	1124	634	1021	633	1019	593	955	562	905	569	915		
	F	7.9 +144.8R	12.1 +96.1R	14.3 +71.8R	15.6 +57.3R	16.5 +47.7R	17.2 +40.8R	17.7 +35.7R	18.1 +31.7R	18.4 +28.5R												
24"	q_a	q_f	961	1547	745	1200	637	1026	573	922	529	852	499	803	475	766	458	737	443	713		
	F	11.1 +143.6R	16 +94.9R	18.6 +70.8R	20.3 +56.4R	21.4 +46.8R	22.2 +40R	22.8 +35R	23.3 +31R	23.7 +27.9R												
14 ga	4"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	
		F	0.7 +80.7R	2.4 +53.8R	3.2 +40.3R	3.7 +32.3R	4.1 +26.9R	4.3 +23R	4.5 +20.2R	4.6 +17.9R	4.8 +16.1R											
	6"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	
		F	2.2 +80.5R	4 +53.6R	4.9 +40.2R	5.4 +32.2R	5.8 +26.8R	6.1 +23R	6.3 +20.1R	6.4 +17.9R	6.5 +16.1R											
	8"	q_a	q_f	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1537	2475	1515	2439	1497	2409			
		F	3.7 +80.2R	5.6 +53.4R	6.5 +40R	7.1 +32R	7.5 +26.7R	7.8 +22.9R	8 +20R	8.1 +17.8R	8.3 +16R											
12"	q_a	q_f	1537	2475	1425	2294	1294	2083	1215	1956	1162	1871	1125	1810	1096	1765	1074	1730	1057	1702		
	F	6.3 +79.6R	8.5 +52.9R	9.6 +39.6R	10.3 +31.6R	10.8 +26.3R	11.1 +22.6R	11.3 +19.7R	11.5 +17.5R	11.7 +15.8R												
18"	q_a	q_f	1463	2475	1125	1812	1069	1721	945	1521	862	1388	868	1397	815	1313	775	1247	787	1267		
	F	9.7 +78.6R	12.4 +52R	13.9 +38.8R	14.8 +30.9R	15.4 +25.7R	15.8 +22R	16.1 +19.2R	16.4 +17.1R	16.6 +15.3R												
24"	q_a	q_f	1238	1994	975	1570	844	1359	765	1232	712	1147	675	1087	647	1041	625	1006	607	978		
	F	12.6 +77.6R	15.9 +51R	17.8 +37.9R	18.9 +30.1R	19.7 +24.9R	20.3 +21.3R	20.7 +18.5R	21.1 +16.4R	21.4 +14.8R												

DEEP DECK PANELS

5.3 6D-12

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/2	20 ga	4"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639		
			F	-22.8 +543.6R	-11.9 +362.4R	-6.4 +271.8R	-3.2 +217.4R	-1 +181.2R	0.6 +155.3R	1.7 +135.9R	2.6 +120.8R	3.4 +108.7R												
		6"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.3 +543.4R	-9.4 +362.2R	-3.9 +271.7R	-0.6 +217.3R	1.6 +181.1R	3.2 +155.2R	4.3 +135.8R	5.3 +120.7R	6 +108.7R												
		8"	q_a	q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18 +543.1R	-6.9 +362.1R	-1.4 +271.5R	2 +217.2R	4.2 +181R	5.7 +155.2R	6.9 +135.8R	7.9 +120.7R	8.6 +108.6R												
	12"	q_a	q_f	399	639	399	639	372	599	355	572	344	553	336	540	329	530	325	523	321	517			
		F	-13.5 +542.5R	-2.1 +361.6R	3.5 +271.2R	6.9 +216.9R	9.2 +180.7R	10.8 +154.9R	12.1 +135.5R	13 +120.5R	13.8 +108.4R													
	18"	q_a	q_f	386	639	305	491	301	484	269	433	248	399	254	408	240	386	229	369	235	378			
		F	-7.2 +541.3R	4.6 +360.6R	10.6 +270.4R	14.2 +216.3R	16.6 +180.2R	18.3 +154.4R	19.6 +135.1R	20.6 +120.1R	21.4 +108.1R													
	24"	q_a	q_f	314	506	257	414	229	368	212	341	200	323	192	309	186	300	181	292	178	286			
		F	-1.6 +540R	11 +359.5R	17.3 +269.4R	21.1 +215.4R	23.7 +179.4R	25.5 +153.8R	26.9 +134.5R	28 +119.5R	28.8 +107.6R													
	18 ga	4"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-7.7 +260.1R	-2.5 +173.4R	0.1 +130R	1.7 +104R	2.8 +86.7R	3.5 +74.3R	4.1 +65R	4.5 +57.8R	4.9 +52R												
		6"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-5.6 +259.9R	-0.3 +173.3R	2.4 +129.9R	3.9 +103.9R	5 +86.6R	5.8 +74.2R	6.3 +65R	6.8 +57.7R	7.1 +52R												
		8"	q_a	q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125		
			F	-3.5 +259.7R	1.8 +173.1R	4.5 +129.8R	6.1 +103.8R	7.2 +86.5R	8 +74.2R	8.6 +64.9R	9 +57.7R	9.4 +51.9R												
	12"	q_a	q_f	685	1104	606	975	566	911	542	872	526	847	514	828	506	815	499	804	494	795			
		F	0.3 +259.1R	6 +172.7R	8.8 +129.5R	10.5 +103.6R	11.6 +86.3R	12.4 +74R	13 +64.7R	13.5 +57.5R	13.8 +51.8R													
	18"	q_a	q_f	574	1104	457	736	454	731	408	657	377	607	387	623	367	590	351	564	360	580			
		F	5.7 +258.1R	11.8 +171.9R	14.9 +128.8R	16.7 +103R	17.9 +85.8R	18.8 +73.5R	19.5 +64.3R	20 +57.2R	20.4 +51.5R													
	24"	q_a	q_f	462	744	383	616	343	552	319	513	303	488	291	469	283	455	276	445	271	436			
		F	10.6 +256.9R	17.3 +170.9R	20.6 +128R	22.7 +102.3R	24.1 +85.2R	25.1 +73R	25.8 +63.8R	26.4 +56.7R	26.8 +51R													
16 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730			
		F	-2.1 +147.2R	0.9 +98.2R	2.3 +73.6R	3.2 +58.9R	3.8 +49.1R	4.3 +42.1R	4.6 +36.8R	4.8 +32.7R	5 +29.4R													
	6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730			
		F	-0.2 +147.1R	2.8 +98.1R	4.3 +73.5R	5.2 +58.8R	5.8 +49R	6.3 +42R	6.6 +36.8R	6.9 +32.7R	7.1 +29.4R													
	8"	q_a	q_f	1081	1730	1081	1730	1081	1730	1050	1690	1027	1653	1010	1626	998	1606	988	1590	980	1578			
		F	1.6 +146.9R	4.7 +97.9R	6.3 +73.4R	7.2 +58.7R	7.8 +48.9R	8.3 +42R	8.6 +36.7R	8.9 +32.6R	9.1 +29.4R													
12"	q_a	q_f	940	1513	836	1346	784	1262	752	1211	732	1178	717	1154	706	1136	697	1122	690	1111				
	F	5.1 +146.4R	8.4 +97.6R	10 +73.1R	11 +58.5R	11.7 +48.7R	12.2 +41.8R	12.5 +36.5R	12.8 +32.5R	13 +29.2R														
18"	q_a	q_f	783	1513	627	1009	627	1009	564	908	522	841	537	865	509	820	488	785	502	808				
	F	9.9 +145.5R	13.6 +96.8R	15.5 +72.5R	16.6 +58R	17.4 +48.3R	17.9 +41.4R	18.3 +36.2R	18.6 +32.2R	18.9 +29R														
24"	q_a	q_f	626	1008	522	841	470	757	439	706	418	673	403	649	392	631	383	617	376	606				
	F	14.2 +144.5R	18.5 +96R	20.6 +71.8R	22 +57.3R	22.9 +47.7R	23.5 +40.9R	24 +35.8R	24.3 +31.8R	24.7 +28.6R														
14 ga	4"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713			
		F	0.8 +80.8R	2.5 +53.8R	3.3 +40.4R	3.8 +32.3R	4.1 +26.9R	4.4 +23.1R	4.5 +20.2R	4.7 +17.9R	4.8 +16.2R													
	6"	q_a	q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713			
		F	2.5 +80.6R	4.2 +53.8R	5 +40.3R	5.6 +32.2R	5.9 +26.9R	6.1 +23R	6.3 +20.2R	6.5 +17.9R	6.6 +16.1R													
	8"	q_a	q_f	1696	2713	1601	2578	1527	2458	1482	2385	1451	2336	1429	2301	1413	2275	1400	2254	1390	2237			
		F	4.1 +80.5R	5.9 +53.6R	6.8 +40.2R	7.3 +32.2R	7.7 +26.8R	7.9 +23R	8.1 +20.1R	8.2 +17.9R	8.4 +16.1R													
12"	q_a	q_f	1317	2121	1178	1896	1108	1784	1066	1717	1039	1672	1019	1640	1004	1616	992	1597	983	1582				
	F	7.2 +80.1R	9.1 +53.3R	10.1 +40R	10.7 +32R	11.1 +26.6R	11.4 +22.8R	11.6 +20R	11.8 +17.7R	11.9 +16R														
18"	q_a	q_f	1092	2121	878	1414	883	1422	797	1283	739	1189	762	1226	723	1164	692	1115	713	1148				
	F	11.5 +79.2R	13.8 +52.7R	14.9 +39.4R	15.7 +31.5R	16.1 +26.2R	16.5 +22.5R	16.7 +19.7R	16.9 +17.5R	17.1 +15.7R														
24"	q_a	q_f	868	1397	728	1172	659	1060	617	993	589	948	569	916	554	892	542	873	533	858				
	F	15.3 +78.3R	18.1 +51.9R	19.5 +38.8R	20.4 +30.9R	21 +25.7R	21.4 +22R	21.7 +19.3R	22 +17.1R	22.2 +15.4R														

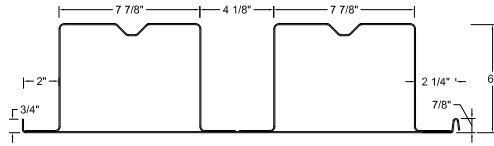
6D-12 5.3

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

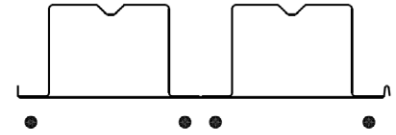


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																		
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
			q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f	q_a q_f
12/4	20 ga	4"	q_a q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-23	+543.4R	-12	+362.3R	-6.5	+271.7R	-3.2	+217.4R	-1.1	+181.1R	0.5	+155.3R	1.7	+135.8R	2.6	+120.7R	3.3	+108.7R
		6"	q_a q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-20.7	+543.1R	-9.6	+362R	-4.1	+271.5R	-0.8	+217.2R	1.5	+181R	3.1	+155.1R	4.2	+135.7R	5.2	+120.7R	5.9	+108.6R
		8"	q_a q_f	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639	399	639
			F	-18.6	+542.7R	-7.3	+361.7R	-1.7	+271.3R	1.7	+217R	3.9	+180.8R	5.5	+155R	6.8	+135.6R	7.7	+120.5R	8.5	+108.5R
	12"	q_a q_f	399	639	399	639	399	639	399	639	399	639	399	639	385	619	374	602	365	588	
		F	-14.8	+541.8R	-3.1	+361R	2.8	+270.6R	6.3	+216.5R	8.7	+180.3R	10.4	+154.6R	11.7	+135.2R	12.7	+120.2R	13.4	+108.2R	
	18"	q_a q_f	399	639	399	639	399	639	357	575	322	518	317	510	295	475	278	448	279	449	
		F	-9.8	+540.4R	2.7	+359.7R	9	+269.5R	12.9	+215.4R	15.5	+179.4R	17.3	+153.7R	18.7	+134.4R	19.8	+119.5R	20.7	+107.5R	
	24"	q_a q_f	399	639	399	639	339	546	300	483	274	441	255	411	241	388	230	371	222	357	
		F	-5.6	+538.9R	7.8	+358.2R	14.7	+268.1R	18.9	+214.2R	21.8	+178.3R	23.9	+152.7R	25.4	+133.5R	26.7	+118.6R	27.6	+106.7R	
	18 ga	4"	q_a q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-7.9	+259.9R	-2.6	+173.3R	0.1	+130R	1.7	+104R	2.7	+86.6R	3.5	+74.3R	4	+65R	4.5	+57.8R	4.8	+52R
		6"	q_a q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-5.9	+259.7R	-0.5	+173.1R	2.2	+129.8R	3.8	+103.8R	4.9	+86.5R	5.7	+74.2R	6.2	+64.9R	6.7	+57.7R	7.1	+51.9R
		8"	q_a q_f	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125	703	1125
			F	-4.1	+259.3R	1.5	+172.8R	4.2	+129.6R	5.9	+103.6R	7	+86.4R	7.8	+74R	8.4	+64.8R	8.9	+57.6R	9.3	+51.8R
	12"	q_a q_f	703	1125	703	1125	703	1125	665	1071	629	1012	603	970	583	939	568	914	556	895	
		F	-0.8	+258.6R	5.1	+172.2R	8.1	+129R	9.9	+103.2R	11.1	+86R	12	+73.7R	12.7	+64.4R	13.2	+57.3R	13.6	+51.5R	
	18"	q_a q_f	703	1125	663	1067	609	980	531	856	480	773	475	765	444	714	419	675	422	679	
		F	3.5	+257.3R	10.1	+171R	13.5	+128R	15.6	+102.3R	17	+85.1R	18	+72.9R	18.7	+63.8R	19.3	+56.7R	19.8	+51R	
	24"	q_a q_f	703	1125	588	947	497	800	442	712	406	653	380	611	360	580	345	555	333	536	
		F	7.1	+256R	14.5	+169.8R	18.4	+126.8R	20.8	+101.2R	22.4	+84.2R	23.6	+72R	24.5	+62.9R	25.2	+55.9R	25.8	+50.2R	
16 ga	4"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-2.3	+147.1R	0.8	+98.1R	2.3	+73.6R	3.2	+58.8R	3.8	+49R	4.2	+42R	4.5	+36.8R	4.8	+32.7R	5	+29.4R	
	6"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	-0.5	+146.9R	2.6	+97.9R	4.2	+73.4R	5.1	+58.7R	5.7	+48.9R	6.2	+41.9R	6.5	+36.7R	6.8	+32.6R	7	+29.4R	
	8"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	
		F	1.1	+146.6R	4.4	+97.7R	6	+73.2R	7	+58.6R	7.6	+48.8R	8.1	+41.8R	8.5	+36.6R	8.7	+32.5R	9	+29.3R	
12"	q_a q_f	1081	1730	1081	1730	985	1586	914	1471	866	1394	832	1339	806	1298	786	1266	771	1241		
	F	4.1	+145.9R	7.6	+97.1R	9.5	+72.7R	10.6	+58.1R	11.3	+48.4R	11.8	+41.5R	12.2	+36.3R	12.5	+32.3R	12.8	+29R		
18"	q_a q_f	1081	1730	895	1442	828	1334	725	1168	657	1058	653	1051	610	983	577	929	582	938		
	F	7.9	+144.8R	12.1	+96.1R	14.3	+71.8R	15.6	+57.3R	16.5	+47.7R	17.2	+40.8R	17.7	+35.7R	18.1	+31.7R	18.4	+28.5R		
24"	q_a q_f	1029	1657	791	1273	672	1081	600	966	552	889	518	834	493	793	473	761	457	736		
	F	11.1	+143.6R	16	+94.9R	18.6	+70.8R	20.3	+56.4R	21.4	+46.8R	22.2	+40R	22.8	+35R	23.3	+31R	23.7	+27.9R		
14 ga	4"	q_a q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	0.7	+80.7R	2.4	+53.8R	3.2	+40.3R	3.7	+32.3R	4.1	+26.9R	4.3	+23R	4.5	+20.2R	4.6	+17.9R	4.8	+16.1R	
	6"	q_a q_f	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	1696	2713	
		F	2.2	+80.5R	4	+53.6R	4.9	+40.2R	5.4	+32.2R	5.8	+26.8R	6.1	+23R	6.3	+20.1R	6.4	+17.9R	6.5	+16.1R	
	8"	q_a q_f	1696	2713	1696	2713	1696	2713	1696	2713	1668	2685	1622	2612	1588	2557	1561	2514	1540	2480	
		F	3.7	+80.2R	5.6	+53.4R	6.5	+40R	7.1	+32R	7.5	+26.7R	7.8	+22.9R	8	+20R	8.1	+17.8R	8.3	+16R	
12"	q_a q_f	1696	2713	1537	2475	1378	2218	1282	2064	1218	1961	1173	1888	1138	1833	1112	1790	1091	1756		
	F	6.3	+79.6R	8.5	+52.9R	9.6	+39.6R	10.3	+31.6R	10.8	+26.3R	11.1	+22.6R	11.3	+19.7R	11.5	+17.5R	11.7	+15.8R		
18"	q_a q_f	1631	2713	1237	1992	1153	1856	1012	1630	918	1479	916	1474	857	1380	812	1308	821	1322		
	F	9.7	+78.6R	12.4	+52R	13.9	+38.8R	14.8	+30.9R	15.4	+25.7R	15.8	+22R	16.1	+19.2R	16.4	+17.1R	16.6	+15.3R		
24"	q_a q_f	1407	2265	1088	1751	928	1494	832	1340	769	1237	723	1164	689	1109	662	1066	641	1032		
	F	12.6	+77.6R	15.9	+51R	17.8	+37.9R	18.9	+30.1R	19.7	+24.9R	20.3	+21.3R	20.7	+18.5R	21.1	+16.4R	21.4	+14.8R		

5.4 6DF-24 Deep Deck



24/4 PATTERN



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w psf	t in	F _y ksi	F _u ksi	A _g in ² /ft	I _g in ⁴ /ft	y _b in	y _t in	S _g in ³ /ft	r in
20/20	4.56	0.0359/0.036	40.00	55.00	1.342	8.475	2.318	3.754	2.258	1.256
20/18	5.11	0.035/0.047	40.00	55.00	1.504	9.205	2.090	3.993	2.305	1.237
20/16	5.63	0.035/0.059	40.00	55.00	1.656	9.770	1.917	4.178	2.338	1.214
18/20	5.52	0.047/0.035	40.00	55.00	1.624	10.405	2.544	3.540	2.939	1.266
18/18	6.03	0.047/0.047	40.00	55.00	1.774	11.245	2.347	3.748	3.000	1.259
18/16	6.59	0.047/0.059	40.00	55.00	1.938	12.025	2.167	3.939	3.053	1.246
16/20	6.48	0.059/0.035	40.00	55.00	1.907	12.235	2.706	3.390	3.609	1.266
16/18	6.98	0.059/0.047	40.00	55.00	2.052	13.180	2.530	3.576	3.686	1.267
16/16	7.55	0.059/0.059	40.00	55.00	2.221	14.120	2.357	3.761	3.754	1.261

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load				
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only		
								I _d = (2I _e +I _g)/3		
A _e ⁺ in ² /ft	S _e ⁺ in ³ /ft	y _b in	S _e ⁻ in ³ /ft	y _b in	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	I ⁺ in ⁴ /ft	I ⁻ in ⁴ /ft		
20/20	1.009	1.863	3.992	1.999	3.074	7.435	6.145	7.782	6.922	
20/18	1.130	1.379	5.705	2.142	3.311	7.865	7.090	8.312	7.795	
20/16	1.281	1.810	4.482	2.221	3.627	8.110	8.055	8.663	8.627	
18/20	1.280	2.760	3.616	2.374	3.219	9.980	7.640	10.122	8.562	
18/18	1.397	2.835	3.815	2.197	3.314	10.815	7.280	10.958	8.602	
18/16	1.549	2.898	3.999	2.884	3.406	11.590	9.820	11.735	10.555	
16/20	1.568	3.610	3.390	2.827	3.285	12.235	9.285	12.235	10.268	
16/18	1.678	3.686	3.576	3.341	3.089	13.180	10.320	13.180	11.273	
16/16	1.835	3.754	3.762	3.545	3.273	14.120	11.600	14.120	12.440	

Reactions and supports (plf) Based on Web Crippling

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load				
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only		
								I _d = (2I _e +I _g)/3		
A _e ⁺ in ² /ft	S _e ⁺ in ³ /ft	y _b in	S _e ⁻ in ³ /ft	y _b in	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	I ⁺ in ⁴ /ft	I ⁻ in ⁴ /ft		
20	0.906	1.631	3.05	1.701	3.20	4.969	5.441	5.152	5.467	
18	1.262	2.285	3.08	2.313	3.16	7.044	7.309	7.134	7.310	
16	1.622	2.883	3.16	2.883	3.16	9.107	9.107	9.107	9.107	
14	2.032	3.595	3.16	3.595	3.16	11.355	11.355	11.355	11.355	

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Deep Deck

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	297	207	152	116	92	74	61	52	44	38	33
		Φf_b	472	328	241	184	146	118	97	82	70	60	52
		L/360	-	197	124	83	58	43	32	25	19	15	13
		L/240	-	-	-	-	87	64	48	37	29	23	19
		L/180	-	-	-	-	-	-	-	49	39	31	25
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	319	222	163	125	99	80	66	55	47	41	35
		Φf_b	506	352	258	198	156	127	105	88	75	65	56
		L/360	-	-	-	-	-	-	-	53	41	33	27
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	399	277	204	156	123	100	82	69	59	51	44
		Φf_b	633	440	323	247	195	158	131	110	94	81	70
		L/360	-	-	-	-	114	83	63	48	38	30	25
L/240		-	-	-	-	-	-	-	-	57	46	37	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
20/18	SS	f_b/Ω	220	153	112	86	68	55	45	38	33	28	24
		Φf_b	349	243	178	136	108	87	72	61	52	45	39
		L/360	-	-	-	-	62	45	34	26	21	17	13
		L/240	-	-	-	-	-	-	-	-	31	25	20
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	342	237	174	134	106	85	71	59	51	44	38
		Φf_b	543	377	277	212	167	136	112	94	80	69	60
		L/360	-	-	-	-	-	-	-	59	47	37	30
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	344	239	175	134	106	86	71	60	51	44	38
		Φf_b	546	379	278	213	168	136	113	95	81	70	61
		L/360	-	-	-	-	-	-	71	54	43	34	28
L/240		-	-	-	-	-	-	-	-	-	-	-	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
20/16	SS	f_b/Ω	289	201	147	113	89	72	60	50	43	37	32
		Φf_b	458	318	234	179	141	115	95	80	68	58	51
		L/360	-	-	138	92	65	47	36	27	22	17	14
		L/240	-	-	-	-	-	71	53	41	32	26	21
		L/180	-	-	-	-	-	-	-	-	-	34	28
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	355	246	181	139	109	89	73	62	52	45	39
		Φf_b	563	391	287	220	174	141	116	98	83	72	63
		L/360	-	-	-	-	-	-	-	-	52	41	34
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	443	308	226	173	137	111	92	77	66	57	49
		Φf_b	703	488	359	275	217	176	145	122	104	90	78
		L/360	-	-	-	-	-	104	78	60	47	38	31
L/240		-	-	-	-	-	-	-	-	-	-	46	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	

DEEP DECK PANELS

6DF-24 5.4

Deep Deck

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

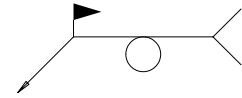
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	576	400	294	225	178	144	119	100	85	74	64
		Φf_b	914	635	467	357	282	229	189	159	135	117	102
		L/360	535	309	195	131	92	67	50	39	30	24	20
		L/240	-	-	292	196	138	100	75	58	46	37	30
		L/180	-	-	-	-	-	134	100	77	61	49	40
	L/120	-	-	-	-	-	-	-	-	-	73	59	
	DS	f_b/Ω	451	313	230	176	139	113	93	78	67	58	50
		Φf_b	716	497	365	280	221	179	148	124	106	91	80
		L/360	-	-	-	-	-	-	-	78	62	49	40
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	564	392	288	220	174	141	117	98	83	72	63
		Φf_b	895	622	457	350	276	224	185	155	132	114	99
		L/360	-	-	-	-	170	124	93	72	56	45	37
L/240		-	-	-	-	-	-	-	-	-	68	55	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		
16/18	SS	f_b/Ω	589	409	300	230	182	147	122	102	87	75	65
		Φf_b	934	648	476	365	288	233	193	162	138	119	104
		L/360	576	333	210	141	99	72	54	42	33	26	21
		L/240	-	-	-	211	148	108	81	63	49	39	32
		L/180	-	-	-	-	-	144	108	83	66	52	43
	L/120	-	-	-	-	-	-	-	-	-	-	64	
	DS	f_b/Ω	533	370	272	208	165	133	110	93	79	68	59
		Φf_b	846	588	432	331	261	212	175	147	125	108	94
		L/360	-	-	-	-	-	-	-	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	667	463	340	260	206	167	138	116	99	85	74
		Φf_b	1058	735	540	413	327	264	219	184	157	135	118
		L/360	-	-	-	-	186	136	102	79	62	50	40
L/240		-	-	-	-	-	-	-	-	93	74	60	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		
16/16	SS	f_b/Ω	599	416	306	234	185	150	124	104	89	76	67
		Φf_b	951	660	485	371	293	238	196	165	141	121	106
		L/360	-	357	225	151	106	77	58	45	35	28	23
		L/240	-	-	-	226	159	116	87	67	53	42	34
		L/180	-	-	-	-	-	-	116	89	70	56	46
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	566	393	289	221	175	141	117	98	84	72	63
		Φf_b	898	624	458	351	277	224	186	156	133	115	100
		L/360	-	-	-	-	-	-	-	95	75	60	49
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	707	491	361	276	218	177	146	123	105	90	79
		Φf_b	1122	779	573	438	346	281	232	195	166	143	125
		L/360	-	-	-	-	206	150	113	87	68	55	44
L/240		-	-	-	-	-	-	-	-	102	82	67	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		

DEEP DECK PANELS

5.4 6DF-24

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
				q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a
24/4	20 ga	4"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	-2.5 +93.6R	-0.6 +62.4R	0.4 +46.8R	0.9 +37.4R	1.3 +31.2R	1.6 +26.7R	1.8 +23.4R	1.9 +20.8R	2.1 +18.7R										
		6"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	-2.1 +93.5R	-0.2 +62.3R	0.8 +46.7R	1.4 +37.4R	1.8 +31.2R	2 +26.7R	2.2 +23.4R	2.4 +20.8R	2.5 +18.7R										
		8"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	-1.7 +93.4R	0.3 +62.3R	1.2 +46.7R	1.8 +37.3R	2.2 +31.1R	2.5 +26.7R	2.7 +23.3R	2.9 +20.7R	3 +18.7R										
	12"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	
		F	-1 +93.3R	1 +62.1R	2 +46.6R	2.7 +37.2R	3.1 +31R	3.4 +26.6R	3.6 +23.3R	3.8 +20.7R	3.9 +18.6R											
	18"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	
		F	-0.1 +93R	2 +61.9R	3.2 +46.3R	3.8 +37R	4.3 +30.9R	4.6 +26.4R	4.9 +23.1R	5 +20.5R	5.2 +18.5R											
	24"	q_a	q_f	777	1282	777	1282	777	1282	768	1267	731	1206	704	1161	683	1128	667	1101	654	1080	
		F	0.6 +92.7R	2.9 +61.6R	4.2 +46.1R	4.9 +36.8R	5.4 +30.6R	5.8 +26.2R	6.1 +22.9R	6.3 +20.4R	6.4 +18.3R											
	18 ga	4"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	-1.1 +63R	0.2 +42R	0.8 +31.5R	1.2 +25.2R	1.5 +21R	1.6 +18R	1.8 +15.7R	1.9 +14R	2 +12.6R										
		6"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	-0.7 +62.9R	0.6 +41.9R	1.2 +31.5R	1.6 +25.2R	1.9 +21R	2 +18R	2.2 +15.7R	2.3 +14R	2.4 +12.6R										
		8"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	-0.4 +62.9R	0.9 +41.9R	1.6 +31.4R	2 +25.1R	2.2 +20.9R	2.4 +17.9R	2.6 +15.7R	2.7 +14R	2.8 +12.6R										
12"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157		
	F	0.2 +62.7R	1.6 +41.8R	2.3 +31.3R	2.7 +25R	3 +20.9R	3.2 +17.9R	3.3 +15.6R	3.5 +13.9R	3.5 +12.5R												
18"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1305	2154	1253	2068	1275	2104		
	F	0.9 +62.5R	2.4 +41.6R	3.2 +31.1R	3.7 +24.9R	4 +20.7R	4.3 +17.7R	4.4 +15.5R	4.6 +13.8R	4.7 +12.4R												
24"	q_a	q_f	1307	2157	1307	2157	1296	2139	1203	1985	1139	1879	1092	1802	1056	1743	1028	1697	1006	1660		
	F	1.6 +62.3R	3.2 +41.3R	4.1 +30.9R	4.6 +24.7R	5 +20.5R	5.3 +17.6R	5.5 +15.4R	5.6 +13.6R	5.8 +12.3R												
16 ga	4"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	-0.3 +44.8R	0.6 +29.8R	1 +22.4R	1.3 +17.9R	1.5 +14.9R	1.6 +12.8R	1.7 +11.2R	1.8 +9.9R	1.9 +8.9R											
	6"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	0 +44.7R	0.9 +29.8R	1.4 +22.3R	1.7 +17.9R	1.8 +14.9R	2 +12.8R	2.1 +11.2R	2.2 +9.9R	2.2 +8.9R											
	8"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	0.3 +44.7R	1.2 +29.8R	1.7 +22.3R	2 +17.8R	2.2 +14.9R	2.3 +12.7R	2.4 +11.1R	2.5 +9.9R	2.6 +8.9R											
12"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670		
	F	0.8 +44.5R	1.8 +29.6R	2.3 +22.2R	2.6 +17.8R	2.8 +14.8R	3 +12.7R	3.1 +11.1R	3.2 +9.9R	3.3 +8.9R												
18"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670		
	F	1.5 +44.3R	2.6 +29.5R	3.2 +22R	3.5 +17.6R	3.8 +14.7R	4 +12.6R	4.1 +11R	4.2 +9.8R	4.3 +8.8R												
24"	q_a	q_f	1618	2670	1618	2670	1618	2670	1564	2581	1487	2453	1430	2359	1387	2288	1353	2232	1326	2187		
	F	2 +44.1R	3.3 +29.2R	4 +21.9R	4.4 +17.4R	4.7 +14.5R	4.9 +12.4R	5 +10.8R	5.1 +9.6R	5.2 +8.7R												

6DF-12 24/4

Support Attachment: 0.5" Effective Dia. Arc Spot Weld

Side Seam Attachment: Top Seam Side-Lap Weld

6DF-24 5.4

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
24/4	20 ga	4"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629		
			F	-2.8	+221.1R	1.9	+147.4R	4.3	+110.5R	5.7	+88.4R	6.7	+73.6R	7.3	+63.1R	7.8	+55.2R	8.2	+49.1R	8.6	+44.2R			
		6"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-0.7	+220.6R	4.2	+146.9R	6.8	+110.1R	8.3	+88R	9.3	+73.3R	10.1	+62.8R	10.6	+55R	11	+48.8R	11.4	+43.9R			
		8"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	1	+220R	6.3	+146.3R	9.1	+109.6R	10.7	+87.6R	11.9	+72.9R	12.7	+62.5R	13.3	+54.6R	13.7	+48.5R	14.1	+43.7R			
	12"	q_a	q_f	390	629	390	629	390	629	390	629	374	602	360	580	350	564	342	551	336	540			
		F	3.9	+218.9R	9.9	+145.2R	13.1	+108.5R	15.1	+86.5R	16.5	+71.9R	17.5	+61.6R	18.2	+53.8R	18.8	+47.7R	19.3	+42.9R				
	18"	q_a	q_f	390	629	390	629	364	585	323	520	295	474	292	470	274	441	260	419	261	421			
		F	7	+217.4R	14.2	+143.5R	18.2	+106.7R	20.8	+84.8R	22.6	+70.3R	24	+60R	25	+52.3R	25.8	+46.3R	26.5	+41.6R				
	24"	q_a	q_f	390	629	353	569	304	490	273	440	252	406	237	382	225	363	216	348	209	337			
		F	9.3	+216.2R	17.6	+142R	22.4	+105.1R	25.6	+83.1R	27.9	+68.5R	29.6	+58.2R	31	+50.6R	32.1	+44.7R	33	+40R				
	18 ga	4"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844		
			F	0.1	+148.8R	3.3	+99.1R	4.9	+74.3R	5.9	+59.4R	6.5	+49.5R	7	+42.4R	7.4	+37.1R	7.6	+33R	7.8	+29.7R			
		6"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844		
			F	1.8	+148.3R	5.3	+98.7R	7.1	+74R	8.1	+59.1R	8.8	+49.2R	9.4	+42.2R	9.7	+36.9R	10	+32.8R	10.3	+29.5R			
		8"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844		
			F	3.3	+147.8R	7.1	+98.2R	9	+73.5R	10.2	+58.7R	11	+48.9R	11.6	+41.9R	12	+36.6R	12.4	+32.5R	12.6	+29.3R			
	12"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	519	835	508	819	500	805			
		F	5.8	+146.8R	10.2	+97.2R	12.6	+72.6R	14	+57.8R	15	+48.1R	15.8	+41.1R	16.3	+35.9R	16.8	+31.9R	17.1	+28.6R				
	18"	q_a	q_f	524	844	524	844	524	844	469	755	430	693	429	691	405	651	385	620	389	626			
		F	8.5	+145.6R	13.9	+95.8R	16.9	+71.1R	18.9	+56.4R	20.3	+46.6R	21.3	+39.7R	22.1	+34.6R	22.8	+30.6R	23.3	+27.4R				
	24"	q_a	q_f	524	844	499	803	434	699	394	634	366	589	346	557	331	532	319	513	309	498			
		F	10.5	+144.5R	16.8	+94.5R	20.5	+69.6R	23	+54.9R	24.9	+45.1R	26.2	+38.2R	27.3	+33.1R	28.2	+29.2R	28.9	+26.1R				
16 ga	4"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060			
		F	1.6	+105.6R	3.9	+70.4R	5.1	+52.8R	5.8	+42.2R	6.3	+35.1R	6.6	+30.1R	6.9	+26.4R	7.1	+23.4R	7.2	+21.1R				
	6"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060			
		F	3.2	+105.2R	5.7	+70R	7	+52.4R	7.8	+41.9R	8.3	+34.9R	8.7	+29.9R	9	+26.2R	9.2	+23.2R	9.4	+20.9R				
	8"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060			
		F	4.5	+104.8R	7.3	+69.6R	8.8	+52.1R	9.7	+41.6R	10.3	+34.6R	10.7	+29.6R	11.1	+25.9R	11.3	+23R	11.5	+20.7R				
12"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060				
	F	6.7	+103.9R	10.1	+68.7R	11.9	+51.2R	13.1	+40.8R	13.9	+33.8R	14.4	+28.9R	14.9	+25.3R	15.2	+22.4R	15.5	+20.1R					
18"	q_a	q_f	658	1060	658	1060	658	1060	627	1009	578	930	579	932	547	881	522	841	529	851				
	F	9.2	+102.8R	13.4	+67.4R	15.8	+49.9R	17.4	+39.4R	18.6	+32.6R	19.4	+27.7R	20.1	+24.1R	20.6	+21.3R	21	+19.1R					
24"	q_a	q_f	658	1060	653	1051	573	923	523	843	489	788	464	748	445	717	431	693	419	674				
	F	10.9	+101.9R	16	+66.2R	19	+48.6R	21.1	+38.1R	22.6	+31.2R	23.8	+26.4R	24.7	+22.8R	25.4	+20R	26	+17.8R					

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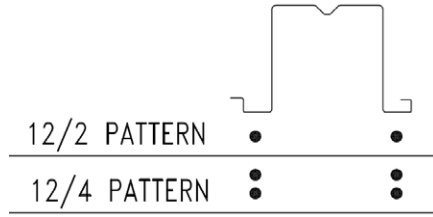
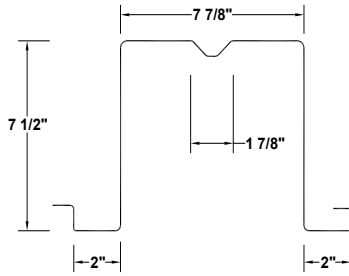
Support Attachment: #12 SD HWH Screw

Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS

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Deep Deck



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w psf	t in	F _y ksi	F _u ksi	A _g in ² /ft	I _g in ⁴ /ft	y _b in	y _t in	S _{gbot} in ³ /ft	r in
20	3.61	0.0359	40	55	1.083	9.317	3.92	3.583	2.379	2.933
18	4.84	0.0478	40	55	1.441	12.359	3.92	3.583	3.156	2.929
16	6.08	0.0598	40	55	1.801	15.400	3.92	3.584	3.932	2.924
14	6.86	0.0750	40	55	2.249	18.920	3.94	3.559	4.800	2.900

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								I _d = (2I _e +I _g)/3	
A _e ⁺ in ² /ft	S _e ⁺ in ³ /ft	y _b in	S _e ⁻ in ³ /ft	y _b in	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	I ⁺ in ⁴ /ft	I ⁻ in ⁴ /ft	
20	1.021	2.248	3.79	2.281	4.00	8.529	9.120	8.792	9.186
18	1.404	3.112	3.83	3.112	3.95	11.905	12.279	12.056	12.306
16	1.799	3.933	3.92	3.929	3.92	15.404	15.396	15.403	15.397
14	2.249	4.802	3.94	4.802	3.94	18.925	18.925	18.923	18.923

Reactions and supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) (lbs/ft width)				LRFD (ϕPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
18	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
16	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
14	End	1408	1686	2080	2637	2154	2580	3183	4034
	Interior	2616	3031	3618	4449	3892	4509	5382	6617
Constants		h = 7.5"		r = 0.25"		θ = 90°			

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Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	359	249	183	140	111	90	74	62	53	46	40
		Φf_b	570	396	291	222	176	142	118	99	84	73	63
		L/360	-	222	140	94	66	48	36	28	22	18	14
		L/240	-	-	-	-	99	72	54	42	33	26	21
		L/180	-	-	-	-	-	-	72	56	44	35	28
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	364	253	186	142	112	91	75	63	54	46	40
		Φf_b	578	401	295	226	178	144	119	100	85	74	64
		L/360	-	-	-	-	-	-	-	-	-	44	36
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	455	316	232	178	141	114	94	79	67	58	51
		Φf_b	722	502	369	282	223	181	149	125	107	92	80
		L/360	-	-	-	-	-	111	83	64	50	40	33
L/240		-	-	-	-	-	-	-	-	-	-	49	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		
18	SS	f_b/Ω	497	345	254	194	153	124	103	86	74	63	55
		Φf_b	788	547	402	308	243	197	163	137	117	101	88
		L/360	-	305	192	129	90	66	49	38	30	24	20
		L/240	-	-	-	193	136	99	74	57	45	36	29
		L/180	-	-	-	-	-	-	99	76	60	48	39
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	497	345	254	194	153	124	103	86	74	63	55
		Φf_b	788	547	402	308	243	197	163	137	117	101	88
		L/360	-	-	-	-	-	-	-	-	-	59	48
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	621	431	317	243	192	155	128	108	92	79	69
		Φf_b	985	684	503	385	304	246	204	171	146	126	109
		L/360	-	-	-	-	-	148	111	86	68	54	44
L/240		-	-	-	-	-	-	-	-	-	-	66	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		
16	SS	f_b/Ω	628	436	320	245	194	157	130	109	93	80	70
		Φf_b	996	692	508	389	308	249	206	173	147	127	111
		L/360	-	390	245	164	115	84	63	49	38	31	25
		L/240	-	-	-	-	173	126	95	73	57	46	37
		L/180	-	-	-	-	-	-	126	97	77	61	50
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	627	436	320	245	194	157	130	109	93	80	70
		Φf_b	995	691	508	389	307	249	206	173	147	127	111
		L/360	-	-	-	-	-	-	-	-	92	74	60
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	784	545	400	306	242	196	162	136	116	100	87
		Φf_b	1244	864	635	486	384	311	257	216	184	159	138
		L/360	-	-	-	-	-	186	139	107	84	68	55
L/240		-	-	-	-	-	-	-	-	-	-	83	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		
14	SS	f_b/Ω	767	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	845	621	475	375	304	251	211	180	155	135
		L/360	-	479	301	202	142	103	78	60	47	38	31
		L/240	-	-	-	-	213	155	117	90	71	57	46
		L/180	-	-	-	-	-	-	155	120	94	75	61
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	767	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	845	621	475	375	304	251	211	180	155	135
		L/360	-	-	-	-	-	-	-	-	113	91	74
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	958	666	489	374	296	240	198	166	142	122	106
		Φf_b	1520	1056	776	594	469	380	314	264	225	194	169
		L/360	-	-	-	-	-	228	171	132	104	83	68
L/240		-	-	-	-	-	-	-	-	-	-	101	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		

DEEP DECK PANELS

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Deep Deck

Allowable Wind Uplift Loads

7.5D-12				Support Fastener Pattern: 12 / 2									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	101	88	78	71	64	59	54
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		191	159	136	119	106	91	75	63	54
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	101	88	78	71	64	59	54
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		191	159	136	119	106	91	75	63	54
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		67	56	48	42	37	34	31	28	26
	Hilti X-ENP-19 L15	≥ 1/4"	705		141	118	101	88	78	71	64	59	54
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		191	159	136	119	106	95	87	79	67
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

7.5D-12				Support Fastener Pattern: 12 / 4									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	96	84	75	67	61	56	52
	Hilti X-ENP-19 L15	≥ 1/4"	705		282	235	186	143	113	91	75	63	54
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	75	63	54
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		365	253	186	143	113	91	75	63	54
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	63	54
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	96	84	75	67	61	56	52
	Hilti X-ENP-19 L15	≥ 1/4"	705		282	235	186	143	113	91	75	63	54
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	75	63	54
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		365	253	186	143	113	91	75	63	54
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	63	54
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		134	112	96	84	75	67	61	56	52
	Hilti X-ENP-19 L15	≥ 1/4"	705		282	235	201	176	141	114	94	79	67
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		381	317	233	178	141	114	94	79	67
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59

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Allowable Wind Uplift Loads

7.5D-12		Support Fastener Pattern: 12 / 2											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	101	89	81	73	67	62
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		258	215	185	161	144	124	103	86	74
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	101	89	81	73	67	62
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		258	215	185	161	144	124	103	86	74
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		90	75	64	56	50	45	41	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	805		161	134	115	101	89	81	73	67	62
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		258	215	185	161	144	129	117	108	92
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

7.5D-12		Support Fastener Pattern: 12 / 4											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	128	112	100	90	81	75	69
	Hilti X-ENP-19 L15	≥ 1/4"	805		322	268	230	194	154	124	103	86	74
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		498	346	254	194	154	124	103	86	74
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	128	112	100	90	81	75	69
	Hilti X-ENP-19 L15	≥ 1/4"	805		322	268	230	194	154	124	103	86	74
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		498	346	254	194	154	124	103	86	74
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		179	149	128	112	100	90	81	75	69
	Hilti X-ENP-19 L15	≥ 1/4"	805		322	268	230	201	179	156	129	108	92
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		517	431	318	243	192	156	129	108	92
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59

DEEP DECK PANELS

5.5 7.5D-12

Deep Deck

Allowable Wind Uplift Loads

7.5D-12				Support Fastener Pattern: 12 / 2									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	180	157	130	109	93
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	180	157	130	109	93
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	33	28	24	21	18	17	15	14	13
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	180	162	147	135	116
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

7.5D-12				Support Fastener Pattern: 12 / 4									
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	194	157	130	109	93
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		629	437	321	246	194	157	130	109	93
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	194	157	130	109	93
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		629	437	321	246	194	157	130	109	93
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	66	55	47	41	37	33	30	28	25
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	196	176	160	136	116
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		649	541	401	307	243	196	162	136	116
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59

7.5D-12 5.5 Deep Deck

Allowable Wind Uplift Loads

7.5D-12		Support Fastener Pattern: 12 / 2											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	180	162	147	133	114
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	180	162	147	133	114
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		103	86	74	64	57	52	47	43	40
	Hilti X-ENP-19 L15	≥ 1/4"	880		176	147	126	110	98	88	80	73	68
	Hilti X-HSN 24	1/8" - 3/8"	435		87	73	62	54	48	44	40	36	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		324	270	232	203	180	162	147	135	125
	Simpson XL Screws	≥ 1/8"	385		77	64	55	48	43	39	35	32	30

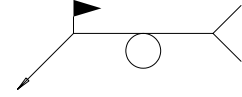
7.5D-12		Support Fastener Pattern: 12 / 4											
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.)								
					10	12	14	16	18	20	22	24	26
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	196	176	159	133	114
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		649	534	392	300	237	192	159	133	114
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	196	176	159	133	114
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		649	534	392	300	237	192	159	133	114
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		206	172	147	129	114	103	94	86	79
	Hilti X-ENP-19 L15	≥ 1/4"	880		352	293	251	220	196	176	160	147	135
	Hilti X-HSN 24	1/8" - 3/8"	435		174	145	124	109	97	87	79	73	67
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		649	541	464	375	296	240	198	167	142
	Simpson XL Screws	≥ 1/8"	385		154	128	110	96	86	77	70	64	59

DEEP DECK PANELS

5.5 7.5D-12

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

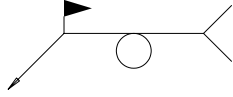
Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"
12/2	20 ga	4"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-40.6 +794.6R	-24.7 +529.7R	-16.8 +397.3R	-12 +317.8R	-8.9 +264.9R	-6.6 +227R	-4.9 +198.6R	-3.6 +176.6R	-2.5 +158.9R								
		6"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-39.7 +794.5R	-23.8 +529.7R	-15.9 +397.3R	-11.1 +317.8R	-7.9 +264.8R	-5.7 +227R	-4 +198.6R	-2.6 +176.6R	-1.6 +158.9R								
		8"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-38.8 +794.4R	-22.9 +529.6R	-15 +397.2R	-10.2 +317.8R	-7 +264.8R	-4.7 +227R	-3 +198.6R	-1.7 +176.5R	-0.6 +158.9R								
	12"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-37.2 +794.2R	-21.2 +529.4R	-13.2 +397.1R	-8.4 +317.7R	-5.2 +264.7R	-2.9 +226.9R	-1.1 +198.5R	0.2 +176.5R	1.3 +158.8R									
	18"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-34.9 +793.8R	-18.7 +529.1R	-10.6 +396.8R	-5.7 +317.4R	-2.5 +264.5R	-0.1 +226.7R	1.6 +198.4R	2.9 +176.3R	4 +158.7R									
	24"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-32.8 +793.3R	-16.4 +528.7R	-8.1 +396.5R	-3.2 +317.1R	0.1 +264.2R	2.5 +226.5R	4.3 +198.2R	5.6 +176.1R	6.8 +158.5R									
	18 ga	4"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-17.4 +380.2R	-9.8 +253.5R	-6 +190.1R	-3.7 +152.1R	-2.2 +126.7R	-1.1 +108.6R	-0.3 +95.1R	0.4 +84.5R	0.9 +76R								
		6"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-16.6 +380.2R	-9 +253.4R	-5.2 +190.1R	-2.9 +152.1R	-1.3 +126.7R	-0.3 +108.6R	0.6 +95R	1.2 +84.5R	1.7 +76R								
		8"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-15.8 +380.1R	-8.2 +253.4R	-4.4 +190R	-2.1 +152R	-0.5 +126.7R	0.6 +108.6R	1.4 +95R	2 +84.5R	2.5 +76R								
	12"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	
		F	-14.4 +379.9R	-6.7 +253.2R	-2.8 +189.9R	-0.5 +151.9R	1 +126.6R	2.2 +108.5R	3 +95R	3.6 +84.4R	4.1 +76R									
	18"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	
		F	-12.5 +379.5R	-4.6 +253R	-0.6 +189.7R	1.8 +151.7R	3.4 +126.4R	4.5 +108.4R	5.3 +94.8R	6 +84.3R	6.5 +75.8R									
	24"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	
		F	-10.7 +379.1R	-2.6 +252.6R	1.5 +189.4R	4 +151.5R	5.6 +126.2R	6.8 +108.2R	7.7 +94.6R	8.3 +84.1R	8.9 +75.7R									
16 ga	4"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-8.4 +215.3R	-4.1 +143.6R	-2 +107.7R	-0.7 +86.1R	0.2 +71.8R	0.8 +61.5R	1.3 +53.8R	1.6 +47.9R	1.9 +43.1R									
	6"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-7.7 +215.3R	-3.4 +143.5R	-1.3 +107.6R	0 +86.1R	0.9 +71.8R	1.5 +61.5R	2 +53.8R	2.4 +47.8R	2.6 +43.1R									
	8"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-7.1 +215.2R	-2.7 +143.5R	-0.5 +107.6R	0.8 +86.1R	1.6 +71.7R	2.3 +61.5R	2.7 +53.8R	3.1 +47.8R	3.4 +43R									
12"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327		
	F	-5.8 +215R	-1.4 +143.3R	0.8 +107.5R	2.2 +86R	3 +71.7R	3.7 +61.4R	4.2 +53.7R	4.5 +47.8R	4.8 +43R										
18"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327		
	F	-4.1 +214.7R	0.5 +143.1R	2.8 +107.3R	4.2 +85.8R	5.1 +71.5R	5.8 +61.3R	6.3 +53.6R	6.7 +47.7R	7 +42.9R										
24"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327		
	F	-2.5 +214.3R	2.3 +142.8R	4.7 +107R	6.1 +85.6R	7.1 +71.3R	7.8 +61.1R	8.3 +53.5R	8.7 +47.5R	9.1 +42.8R										
14 ga	4"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-3.4 +118.2R	-1.1 +78.8R	0.1 +59.1R	0.8 +47.3R	1.3 +39.4R	1.7 +33.8R	1.9 +29.5R	2.1 +26.3R	2.3 +23.6R									
	6"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-2.8 +118.1R	-0.4 +78.8R	0.8 +59.1R	1.5 +47.3R	2 +39.4R	2.3 +33.7R	2.6 +29.5R	2.8 +26.2R	2.9 +23.6R									
	8"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-2.2 +118.1R	0.2 +78.7R	1.4 +59R	2.1 +47.2R	2.6 +39.4R	2.9 +33.7R	3.2 +29.5R	3.4 +26.2R	3.6 +23.6R									
12"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095		
	F	-1.1 +117.9R	1.4 +78.6R	2.6 +58.9R	3.4 +47.1R	3.9 +39.3R	4.2 +33.7R	4.5 +29.5R	4.7 +26.2R	4.8 +23.6R										
18"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095		
	F	0.5 +117.6R	3.1 +78.4R	4.4 +58.7R	5.2 +47R	5.7 +39.1R	6.1 +33.6R	6.3 +29.4R	6.6 +26.1R	6.7 +23.5R										
24"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095		
	F	1.9 +117.3R	4.6 +78.1R	6 +58.5R	6.9 +46.8R	7.5 +39R	7.9 +33.4R	8.2 +29.2R	8.4 +26R	8.6 +23.4R										

7.5D-12 5.5

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"
12/4	20 ga	4"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-40.7 +794.5R	-24.8 +529.7R	-16.8 +397.3R	-12.1 +317.8R	-8.9 +264.8R	-6.6 +227R	-4.9 +198.6R	-3.6 +176.6R	-2.5 +158.9R								
		6"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-39.8 +794.4R	-23.9 +529.6R	-15.9 +397.2R	-11.2 +317.8R	-8 +264.8R	-5.7 +227R	-4 +198.6R	-2.7 +176.5R	-1.6 +158.9R								
		8"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-39.1 +794.3R	-23.1 +529.5R	-15.1 +397.1R	-10.3 +317.7R	-7.1 +264.7R	-4.8 +226.9R	-3.1 +198.5R	-1.7 +176.5R	-0.7 +158.8R								
	12"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-37.7 +794R	-21.5 +529.2R	-13.4 +396.9R	-8.6 +317.5R	-5.3 +264.6R	-3 +226.8R	-1.3 +198.4R	0.1 +176.4R	1.1 +158.7R									
	18"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-35.8 +793.4R	-19.4 +528.8R	-11.1 +396.5R	-6.2 +317.1R	-2.9 +264.2R	-0.5 +226.5R	1.3 +198.1R	2.7 +176.1R	3.8 +158.5R									
	24"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-34.3 +792.9R	-17.5 +528.2R	-9.1 +396R	-4 +316.7R	-0.5 +263.8R	1.9 +226.1R	3.7 +197.8R	5.2 +175.8R	6.3 +158.2R									
	18 ga	4"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-17.4 +380.2R	-9.8 +253.5R	-6 +190.1R	-3.7 +152.1R	-2.2 +126.7R	-1.1 +108.6R	-0.3 +95R	0.4 +84.5R	0.9 +76R								
		6"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-16.7 +380.1R	-9 +253.4R	-5.2 +190R	-2.9 +152R	-1.4 +126.7R	-0.3 +108.6R	0.5 +95R	1.2 +84.5R	1.7 +76R								
		8"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-16 +380R	-8.3 +253.3R	-4.5 +190R	-2.2 +152R	-0.6 +126.6R	0.5 +108.5R	1.3 +95R	2 +84.4R	2.5 +76R								
	12"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	
		F	-14.8 +379.7R	-7 +253.1R	-3 +189.8R	-0.7 +151.8R	0.9 +126.5R	2 +108.4R	2.9 +94.9R	3.5 +84.3R	4 +75.9R									
	18"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	
		F	-13.2 +379.2R	-5.2 +252.6R	-1.1 +189.4R	1.4 +151.5R	3 +126.2R	4.2 +108.1R	5.1 +94.6R	5.8 +84.1R	6.3 +75.7R									
	24"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	
		F	-11.9 +378.8R	-3.5 +252.2R	0.7 +189R	3.3 +151.1R	5 +125.8R	6.3 +107.8R	7.2 +94.3R	7.9 +83.8R	8.5 +75.4R									
16 ga	4"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-8.5 +215.3R	-4.2 +143.5R	-2 +107.6R	-0.7 +86.1R	0.2 +71.8R	0.8 +61.5R	1.2 +53.8R	1.6 +47.8R	1.9 +43.1R									
	6"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-7.9 +215.2R	-3.5 +143.5R	-1.3 +107.6R	0 +86.1R	0.9 +71.7R	1.5 +61.5R	2 +53.8R	2.3 +47.8R	2.6 +43R									
	8"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-7.3 +215.1R	-2.8 +143.4R	-0.6 +107.5R	0.7 +86R	1.6 +71.7R	2.2 +61.4R	2.7 +53.8R	3 +47.8R	3.3 +43R									
12"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327		
	F	-6.2 +214.9R	-1.6 +143.2R	0.6 +107.4R	2 +85.9R	2.9 +71.5R	3.6 +61.3R	4 +53.7R	4.4 +47.7R	4.7 +42.9R										
18"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327		
	F	-4.8 +214.5R	0 +142.8R	2.4 +107R	3.8 +85.6R	4.8 +71.3R	5.5 +61.1R	6 +53.4R	6.4 +47.5R	6.8 +42.7R										
24"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327		
	F	-3.6 +214R	1.4 +142.4R	4 +106.7R	5.5 +85.2R	6.6 +71R	7.4 +60.8R	7.9 +53.2R	8.4 +47.2R	8.7 +42.5R										
14 ga	4"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-3.5 +118.1R	-1.1 +78.8R	0.1 +59.1R	0.8 +47.3R	1.3 +39.4R	1.6 +33.8R	1.9 +29.5R	2.1 +26.3R	2.3 +23.6R									
	6"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-2.9 +118.1R	-0.5 +78.7R	0.7 +59R	1.4 +47.2R	1.9 +39.3R	2.3 +33.7R	2.5 +29.5R	2.7 +26.2R	2.9 +23.6R									
	8"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-2.4 +118R	0.1 +78.6R	1.3 +59R	2 +47.2R	2.5 +39.3R	2.9 +33.7R	3.2 +29.5R	3.4 +26.2R	3.5 +23.6R									
12"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095		
	F	-1.4 +117.8R	1.1 +78.4R	2.4 +58.8R	3.2 +47R	3.7 +39.2R	4.1 +33.6R	4.4 +29.4R	4.6 +26.1R	4.8 +23.5R										
18"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095		
	F	-0.2 +117.4R	2.6 +78.1R	4 +58.5R	4.8 +46.8R	5.4 +39R	5.8 +33.4R	6.1 +29.2R	6.4 +25.9R	6.6 +23.3R										
24"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095		
	F	0.9 +117R	3.9 +77.8R	5.4 +58.2R	6.4 +46.5R	7 +38.7R	7.5 +33.1R	7.8 +29R	8.1 +25.7R	8.3 +23.1R										

DEEP DECK PANELS



HILTI

7.5D-12 5.5

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
				q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	
12/4	20 ga	4"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481		
			F	-157.9 +3260.9R	-91.4 +2173.5R	-58.1 +1629.9R	-38.1 +1303.8R	-24.8 +1086.4R	-15.2 +931.2R	-8.1 +814.7R	-2.5 +724.2R	2 +651.8R										
		6"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-152.1 +3258.9R	-84.5 +2171.5R	-50.4 +1628.1R	-29.9 +1302.2R	-16.2 +1084.9R	-6.4 +929.8R	1 +813.5R	6.7 +723R	11.3 +650.7R										
		8"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-147.5 +3257R	-78.5 +2169.5R	-43.6 +1626.1R	-22.5 +1300.3R	-8.4 +1083.2R	1.8 +928.2R	9.4 +812R	15.4 +721.6R	20.1 +649.3R										
	12"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-140.5 +3253.7R	-68.9 +2165.7R	-32.2 +1622.1R	-9.7 +1296.3R	5.5 +1079.3R	16.5 +924.4R	24.8 +808.4R	31.3 +718.2R	36.5 +646.1R											
	18"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	281	453	266	428	268	432			
		F	-133.3 +3249.9R	-58.4 +2160.7R	-18.9 +1616.5R	5.8 +1290.4R	22.7 +1073.3R	35.1 +918.4R	44.6 +802.5R	52.1 +712.4R	58.2 +640.4R											
	24"	q_a	q_f	301	481	301	481	301	481	278	448	256	412	240	386	228	367	218	352	211	339	
		F	-128.6 +3247.1R	-50.8 +2156.7R	-8.8 +1611.7R	17.9 +1285R	36.6 +1067.6R	50.5 +912.5R	61.3 +796.4R	69.9 +706.3R	77 +634.4R											
	18 ga	4"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-63.6 +1559.4R	-31.3 +1039.2R	-15.1 +779.2R	-5.3 +623.3R	1.2 +519.3R	5.8 +445.1R	9.3 +389.4R	12.1 +346.1R	14.2 +311.5R										
		6"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-58.7 +1557.7R	-25.3 +1037.5R	-8.5 +777.7R	1.7 +621.9R	8.6 +518R	13.5 +443.9R	17.1 +388.3R	20 +345.1R	22.3 +310.6R										
		8"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-54.7 +1556R	-20.2 +1035.8R	-2.6 +776R	8.1 +620.3R	15.3 +516.5R	20.5 +442.5R	24.4 +387R	27.5 +343.9R	29.9 +309.4R										
	12"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	
		F	-48.6 +1553.2R	-11.9 +1032.5R	7.3 +772.5R	19.2 +616.8R	27.3 +513.2R	33.2 +439.3R	37.7 +384R	41.2 +341R	44.1 +306.6R											
	18"	q_a	q_f	536	857	536	857	536	857	491	791	447	719	447	719	419	674	397	639	402	647	
		F	-42.5 +1549.9R	-2.8 +1028.2R	18.8 +767.7R	32.5 +611.7R	42.2 +508R	49.3 +434.1R	54.8 +378.8R	59.2 +335.9R	62.8 +301.7R											
	24"	q_a	q_f	536	857	521	840	447	719	402	647	372	599	351	565	335	539	323	519	313	503	
		F	-38.4 +1547.5R	3.8 +1024.8R	27.5 +763.5R	43 +607.1R	54.2 +503.1R	62.6 +429R	69.2 +373.6R	74.6 +330.7R	79 +296.5R											
16 ga	4"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-27.8 +882.4R	-9.1 +587.9R	0.3 +440.8R	5.9 +352.5R	9.7 +293.7R	12.4 +251.7R	14.5 +220.2R	16.1 +195.7R	17.3 +176.2R											
	6"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-23.4 +880.9R	-3.8 +586.4R	6.2 +439.4R	12.2 +351.3R	16.3 +292.6R	19.2 +250.7R	21.4 +219.3R	23.1 +194.8R	24.5 +175.3R											
	8"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-19.8 +879.4R	0.8 +584.9R	11.4 +437.9R	17.9 +349.8R	22.4 +291.2R	25.5 +249.4R	27.9 +218.1R	29.8 +193.7R	31.3 +174.3R											
12"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	812	1308	786	1265	766	1233	751	1209	738	1189		
	F	-14.4 +876.9R	8.2 +581.9R	20.3 +434.8R	27.8 +346.8R	33 +288.2R	36.9 +246.5R	39.8 +215.3R	42.1 +191.1R	43.9 +171.8R												
18"	q_a	q_f	830	1327	788	1269	748	1204	661	1064	603	971	607	977	570	918	542	872	550	886		
	F	-8.9 +873.9R	16.3 +578.1R	30.5 +430.5R	39.7 +342.2R	46.3 +283.6R	51.2 +241.9R	55 +210.8R	58.1 +186.6R	60.6 +167.4R												
24"	q_a	q_f	830	1327	684	1101	591	952	536	862	499	803	472	760	452	728	437	704	425	684		
	F	-5.2 +871.8R	22.2 +575R	38.3 +426.8R	49.1 +338.1R	57 +279.2R	63.1 +237.4R	67.9 +206.1R	71.8 +182R	75.1 +162.8R												
14 ga	4"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-8 +483.6R	2.6 +322.1R	8 +241.4R	11.2 +193.1R	13.4 +160.8R	14.9 +137.8R	16.1 +120.6R	17 +107.2R	17.7 +96.4R											
	6"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-4.1 +482.2R	7.3 +320.8R	13.2 +240.2R	16.8 +191.9R	19.2 +159.8R	20.9 +136.9R	22.2 +119.7R	23.3 +106.4R	24.1 +95.7R											
	8"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-0.9 +480.9R	11.4 +319.4R	17.9 +238.9R	21.8 +190.7R	24.6 +158.6R	26.5 +135.8R	28 +118.7R	29.2 +105.4R	30.1 +94.8R											
12"	q_a	q_f	1309	2095	1309	2095	1246	2006	1177	1894	1130	1820	1097	1767	1073	1727	1053	1696	1038	1671		
	F	3.9 +478.7R	18 +316.8R	25.7 +236.1R	30.6 +187.9R	34 +156R	36.6 +133.2R	38.5 +116.2R	40.1 +103.1R	41.3 +92.5R												
18"	q_a	q_f	1309	2095	1062	1709	1021	1644	907	1460	831	1337	840	1353	792	1274	754	1213	768	1237		
	F	8.7 +476.1R	25.2 +313.4R	34.8 +232.3R	41.2 +183.9R	45.8 +151.9R	49.3 +129.1R	52.1 +112.2R	54.3 +99.1R	56.1 +88.7R												
24"	q_a	q_f	1143	1840	912	1468	796	1282	727	1170	681	1096	648	1043	623	1003	604	972	588	947		
	F	12 +474.2R	30.4 +310.6R	41.6 +229R	49.5 +180.2R	55.3 +148R	59.8 +125.1R	63.5 +108.1R	66.5 +95R	69 +84.6R												

DEEP DECK PANELS

5.5 7.5D-12

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
			q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f		
12/2	20 ga	4"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481		
			F	-38.5 +815.8R	-22.1 +543.8R	-14 +407.9R	-9.1 +326.3R	-5.8 +271.9R	-3.5 +233.1R	-1.7 +203.9R	-0.4 +181.3R	0.7 +163.2R												
		6"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-36 +815.6R	-19.6 +543.7R	-11.4 +407.8R	-6.5 +326.2R	-3.2 +271.8R	-0.9 +233R	0.9 +203.9R	2.3 +181.2R	3.4 +163.1R												
		8"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-33.6 +815.3R	-17.1 +543.5R	-8.9 +407.6R	-3.9 +326.1R	-0.6 +271.8R	1.7 +232.9R	3.5 +203.8R	4.9 +181.2R	6 +163R												
	12"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-29.1 +814.7R	-12.4 +543.1R	-4 +407.3R	1.1 +325.8R	4.4 +271.5R	6.8 +232.7R	8.6 +203.6R	10 +181R	11.1 +162.9R													
	18"	q_a	q_f	301	481	284	457	285	458	256	413	238	383	245	394	232	373	222	358	229	368			
		F	-22.9 +813.5R	-5.6 +542.1R	3.1 +406.5R	8.3 +325.1R	11.8 +270.9R	14.3 +232.2R	16.1 +203.2R	17.6 +180.6R	18.8 +162.5R													
	24"	q_a	q_f	283	455	236	381	213	343	199	321	190	306	183	295	178	287	174	281	171	276			
		F	-17.2 +812.2R	0.7 +541R	9.8 +405.5R	15.2 +324.3R	18.9 +270.2R	21.5 +231.5R	23.5 +202.6R	25 +180R	26.2 +162R													
	18 ga	4"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-15 +390.3R	-7.2 +260.2R	-3.3 +195.2R	-0.9 +156.1R	0.6 +130.1R	1.8 +111.5R	2.6 +97.6R	3.3 +86.7R	3.8 +78.1R												
		6"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-12.9 +390.2R	-5 +260.1R	-1.1 +195.1R	1.3 +156.1R	2.9 +130R	4 +111.5R	4.9 +97.5R	5.5 +86.7R	6 +78R												
		8"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-10.9 +389.9R	-2.9 +259.9R	1.1 +194.9R	3.5 +156R	5.1 +130R	6.2 +111.4R	7.1 +97.5R	7.8 +86.6R	8.3 +78R												
	12"	q_a	q_f	536	857	536	857	536	857	519	836	507	816	497	801	490	788	484	779	479	771			
		F	-7 +389.4R	1.2 +259.5R	5.3 +194.6R	7.8 +155.7R	9.5 +129.7R	10.6 +111.2R	11.5 +97.3R	12.2 +86.5R	12.7 +77.8R													
	18"	q_a	q_f	517	857	419	675	426	686	385	620	358	577	371	597	352	567	338	544	349	562			
		F	-1.6 +388.4R	7.1 +258.7R	11.4 +194R	14 +155.1R	15.8 +129.2R	17.1 +110.8R	18 +96.9R	18.7 +86.1R	19.3 +77.5R													
	24"	q_a	q_f	406	653	345	555	314	506	296	477	284	457	275	443	269	433	264	424	260	418			
		F	3.3 +387.2R	12.5 +257.7R	17.2 +193.1R	20 +154.4R	21.9 +128.6R	23.3 +110.2R	24.3 +96.4R	25.1 +85.7R	25.8 +77.1R													
16 ga	4"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-6.2 +221R	-1.7 +147.3R	0.5 +110.5R	1.8 +88.4R	2.7 +73.7R	3.4 +63.1R	3.9 +55.3R	4.2 +49.1R	4.5 +44.2R													
	6"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-4.3 +220.9R	0.2 +147.2R	2.5 +110.4R	3.8 +88.3R	4.7 +73.6R	5.4 +63.1R	5.9 +55.2R	6.2 +49.1R	6.5 +44.2R													
	8"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-2.5 +220.7R	2.1 +147.1R	4.4 +110.3R	5.8 +88.3R	6.7 +73.5R	7.4 +63R	7.9 +55.2R	8.2 +49R	8.6 +44.1R													
12"	q_a	q_f	830	1327	776	1250	736	1184	711	1144	694	1117	682	1098	673	1083	666	1072	660	1063				
	F	1 +220.2R	5.8 +146.7R	8.2 +110R	9.6 +88R	10.6 +73.3R	11.3 +62.9R	11.8 +55.5R	12.2 +48.9R	12.5 +44R														
18"	q_a	q_f	694	1327	567	913	582	937	528	851	493	793	512	824	487	784	468	753	484	779				
	F	5.8 +219.3R	11 +146R	13.6 +109.4R	15.2 +87.5R	16.3 +72.9R	17 +62.5R	17.6 +54.6R	18 +48.6R	18.4 +43.7R														
24"	q_a	q_f	537	864	462	744	425	685	403	649	388	625	377	608	369	595	363	585	358	577				
	F	10.2 +218.2R	15.9 +145.1R	18.8 +108.7R	20.6 +86.9R	21.8 +72.3R	22.6 +62R	23.2 +54.2R	23.7 +48.2R	24.1 +43.3R														
14 ga	4"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	-1.3 +121.3R	1.1 +80.8R	2.4 +60.6R	3.1 +48.5R	3.6 +40.4R	4 +34.6R	4.2 +30.3R	4.4 +26.9R	4.6 +24.3R													
	6"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	0.4 +121.1R	2.9 +80.8R	4.1 +60.6R	4.9 +48.4R	5.4 +40.4R	5.7 +34.6R	6 +30.3R	6.2 +26.9R	6.4 +24.2R													
	8"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F	2 +121R	4.6 +80.6R	5.8 +60.5R	6.6 +48.4R	7.1 +40.3R	7.5 +34.5R	7.8 +30.2R	8 +26.9R	8.2 +24.2R													
12"	q_a	q_f	1156	1860	1061	1709	1013	1631	983	1583	964	1551	949	1529	939	1511	930	1498	924	1487				
	F	5.1 +120.5R	7.8 +80.3R	9.2 +60.2R	10 +48.2R	10.6 +40.1R	11 +34.4R	11.3 +30.1R	11.5 +26.7R	11.7 +24.1R														
18"	q_a	q_f	948	1860	782	1258	811	1306	739	1189	691	1112	720	1160	687	1105	660	1063	682	1097				
	F	9.3 +119.7R	12.4 +79.7R	14 +59.7R	15 +47.7R	15.6 +39.7R	16.1 +34R	16.4 +29.8R	16.7 +26.5R	16.9 +23.8R														
24"	q_a	q_f	723	1164	632	1017	586	944	559	900	541	871	528	850	518	834	510	822	504	812				
	F	13.2 +118.8R	16.8 +78.9R	18.6 +59R	19.7 +47.1R	20.5 +39.2R	21 +33.6R	21.4 +29.4R	21.7 +26.1R	22 +23.5R														



7.5D-12 5.5

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
				q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	
12/4	20 ga	4"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481		
			F		-38.6 +815.6R		-22.2 +543.7R		-14 +407.8R		-9.1 +326.2R		-5.9 +271.9R		-3.5 +233R		-1.8 +203.9R		-0.4 +181.2R		0.7 +163.1R	
		6"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F		-36.4 +815.3R		-19.9 +543.5R		-11.6 +407.6R		-6.6 +326.1R		-3.3 +271.7R		-1 +232.9R		0.8 +203.8R		2.2 +181.1R		3.3 +163R	
		8"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F		-34.3 +814.9R		-17.6 +543.2R		-9.2 +407.4R		-4.2 +325.9R		-0.9 +271.6R		1.5 +232.8R		3.3 +203.7R		4.7 +181R		5.8 +162.9R	
	12"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F		-30.4 +814.1R		-13.3 +542.5R		-4.7 +406.7R		0.5 +325.3R		3.9 +271.1R		6.4 +232.3R		8.2 +203.3R		9.7 +180.7R		10.8 +162.6R		
	18"	q_a	q_f	301	481	301	481	301	481	301	481	298	479	296	477	277	446	262	422	265	426	
		F		-25.5 +812.6R		-7.5 +541.1R		1.5 +405.6R		7 +324.3R		10.7 +270.1R		13.3 +231.5R		15.3 +202.5R		16.8 +180R		18.1 +161.9R		
	24"	q_a	q_f	301	481	301	481	301	481	271	437	250	402	235	378	223	359	214	345	207	334	
		F		-21.3 +811.1R		-2.4 +539.7R		7.2 +404.2R		13.1 +323R		17 +269R		19.9 +230.4R		22 +201.5R		23.7 +179.1R		25 +161.1R		
	18 ga	4"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F		-15.2 +390.2R		-7.3 +260.1R		-3.4 +195.1R		-1 +156.1R		0.6 +130.1R		1.7 +111.5R		2.6 +97.5R		3.2 +86.7R		3.7 +78R	
		6"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F		-13.2 +389.9R		-5.2 +259.9R		-1.2 +194.9R		1.2 +155.9R		2.8 +129.9R		3.9 +111.4R		4.8 +97.5R		5.4 +86.6R		6 +78R	
		8"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F		-11.4 +389.6R		-3.3 +259.7R		0.8 +194.7R		3.3 +155.8R		4.9 +129.8R		6.1 +111.2R		6.9 +97.3R		7.6 +86.5R		8.2 +77.9R	
	12"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	530	853	
		F		-8.1 +388.8R		0.4 +259R		4.7 +194.2R		7.3 +155.3R		9 +129.4R		10.2 +110.9R		11.2 +97R		11.9 +86.2R		12.5 +77.6R		
	18"	q_a	q_f	536	857	536	857	536	857	479	772	437	703	438	705	411	662	390	628	396	637	
		F		-3.8 +387.6R		5.4 +257.9R		10.1 +193.2R		12.9 +154.4R		14.9 +128.6R		16.2 +110.1R		17.3 +96.3R		18.1 +85.6R		18.7 +77R		
	24"	q_a	q_f	536	857	502	808	432	696	390	628	362	583	342	551	328	527	316	509	307	494	
		F		-0.2 +386.3R		9.8 +256.6R		15 +192R		18.2 +153.3R		20.3 +127.6R		21.9 +109.2R		23.1 +95.5R		24 +84.8R		24.7 +76.3R		
16 ga	4"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F		-6.3 +220.9R		-1.8 +147.3R		0.4 +110.4R		1.8 +88.4R		2.7 +73.6R		3.3 +63.1R		3.8 +55.2R		4.2 +49.1R		4.5 +44.2R		
	6"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F		-4.6 +220.7R		0 +147.1R		2.3 +110.3R		3.7 +88.2R		4.6 +73.5R		5.3 +63R		5.8 +55.1R		6.2 +49R		6.5 +44.1R		
	8"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F		-2.9 +220.4R		1.8 +146.9R		4.2 +110.1R		5.6 +88.1R		6.5 +73.4R		7.2 +62.9R		7.7 +55R		8.1 +48.9R		8.4 +44R		
12"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	798	1284	773	1245	755	1216	741	1193	730	1175		
	F		0 +219.7R		5.1 +146.3R		7.6 +109.6R		9.2 +87.7R		10.2 +73R		11 +62.6R		11.5 +54.7R		11.9 +48.7R		12.3 +43.8R			
18"	q_a	q_f	830	1327	759	1222	726	1169	643	1036	589	948	594	956	559	900	532	856	541	872		
	F		3.8 +218.6R		9.5 +145.3R		12.4 +108.7R		14.2 +86.9R		15.4 +72.3R		16.3 +61.9R		16.9 +54.1R		17.5 +48.1R		17.9 +43.3R			
24"	q_a	q_f	824	1327	654	1053	569	916	518	834	484	779	460	740	441	711	427	688	416	670		
	F		7.1 +217.4R		13.4 +144.1R		16.8 +107.7R		18.9 +85.9R		20.3 +71.4R		21.3 +61.1R		22.1 +53.4R		22.7 +47.4R		23.2 +42.6R			
14 ga	4"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F		-1.4 +121.2R		1.1 +80.8R		2.3 +60.6R		3.1 +48.5R		3.6 +40.4R		3.9 +34.6R		4.2 +30.3R		4.4 +26.9R		4.6 +24.2R		
	6"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F		0.1 +121R		2.7 +80.6R		4 +60.5R		4.8 +48.4R		5.3 +40.3R		5.7 +34.5R		5.9 +30.2R		6.2 +26.9R		6.3 +24.2R		
	8"	q_a	q_f	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	1220	1964	
		F		1.6 +120.7R		4.3 +80.4R		5.6 +60.3R		6.4 +48.2R		7 +40.2R		7.4 +34.4R		7.7 +30.1R		7.9 +26.8R		8.1 +24.1R		
12"	q_a	q_f	1220	1964	1220	1964	1212	1951	1149	1851	1108	1784	1078	1736	1056	1700	1038	1672	1024	1649		
	F		4.2 +120.1R		7.2 +79.9R		8.7 +59.9R		9.6 +47.8R		10.2 +39.8R		10.7 +34.1R		11 +29.9R		11.3 +26.5R		11.5 +23.9R			
18"	q_a	q_f	1220	1964	1017	1637	987	1590	880	1416	808	1301	821	1322	775	1247	739	1189	755	1215		
	F		7.6 +119.1R		11.1 +79R		13 +59R		14.1 +47.1R		14.9 +39.2R		15.4 +33.6R		15.8 +29.3R		16.2 +26.1R		16.4 +23.4R			
24"	q_a	q_f	1075	1731	867	1395	762	1228	700	1127	658	1060	628	1012	606	976	589	948	575	925		
	F		10.4 +118.1R		14.6 +78R		16.8 +58.1R		18.2 +46.3R		19.2 +38.4R		19.9 +32.8R		20.4 +28.7R		20.8 +25.4R		21.2 +22.9R			

DEEP DECK PANELS

5.5 7.5D-12

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"				
				q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f			
12/2	20 ga	4"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481		
			F	-38.5	+815.8R	-22.1	+543.8R	-14	+407.9R	-9.1	+326.3R	-5.8	+271.9R	-3.5	+233.1R	-1.7	+203.9R	-0.4	+181.3R	0.7	+163.2R			
		6"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-36	+815.6R	-19.6	+543.7R	-11.4	+407.8R	-6.5	+326.2R	-3.2	+271.8R	-0.9	+233R	0.9	+203.9R	2.3	+181.2R	3.4	+163.1R			
		8"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
			F	-33.6	+815.3R	-17.1	+543.5R	-8.9	+407.6R	-3.9	+326.1R	-0.6	+271.8R	1.7	+232.9R	3.5	+203.8R	4.9	+181.2R	6	+163R			
	12"	q_a	q_f	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	
		F	-29.1	+814.7R	-12.4	+543.1R	-4	+407.3R	1.1	+325.8R	4.4	+271.5R	6.8	+232.7R	8.6	+203.6R	10	+181R	11.1	+162.9R				
	18"	q_a	q_f	301	481	301	481	298	480	267	430	247	397	252	406	239	384	228	367	234	377			
		F	-22.9	+813.5R	-5.6	+542.1R	3.1	+406.5R	8.3	+325.1R	11.8	+270.9R	14.3	+232.2R	16.1	+203.2R	17.6	+180.6R	18.8	+162.5R				
	24"	q_a	q_f	301	481	254	410	227	365	210	338	199	320	191	307	185	298	180	290	177	284			
		F	-17.2	+812.2R	0.7	+541R	9.8	+405.5R	15.2	+324.3R	18.9	+270.2R	21.5	+231.5R	23.5	+202.6R	25	+180R	26.2	+162R				
	18 ga	4"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-15	+390.3R	-7.2	+260.2R	-3.3	+195.2R	-0.9	+156.1R	0.6	+130.1R	1.8	+111.5R	2.6	+97.6R	3.3	+86.7R	3.8	+78.1R			
		6"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-12.9	+390.2R	-5	+260.1R	-1.1	+195.1R	1.3	+156.1R	2.9	+130R	4	+111.5R	4.9	+97.5R	5.5	+86.7R	6	+78R			
		8"	q_a	q_f	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
			F	-10.9	+389.9R	-2.9	+259.9R	1.1	+194.9R	3.5	+156R	5.1	+130R	6.2	+111.4R	7.1	+97.5R	7.8	+86.6R	8.3	+78R			
		12"	q_a	q_f	536	857	536	857	536	857	536	857	523	841	512	824	503	811	497	800	492	792		
			F	-7	+389.4R	1.2	+259.5R	5.3	+194.6R	7.8	+155.7R	9.5	+129.7R	10.6	+111.2R	11.5	+97.3R	12.2	+86.5R	12.7	+77.8R			
		18"	q_a	q_f	536	857	450	725	449	723	404	651	374	602	384	619	364	586	348	561	358	577		
			F	-1.6	+388.4R	7.1	+258.7R	11.4	+194R	14	+155.1R	15.8	+129.2R	17.1	+110.8R	18	+96.9R	18.7	+86.1R	19.3	+77.5R			
		24"	q_a	q_f	453	729	376	606	338	544	315	507	300	482	289	465	280	452	274	441	269	433		
			F	3.3	+387.2R	12.5	+257.7R	17.2	+193.1R	20	+154.4R	21.9	+128.6R	23.3	+110.2R	24.3	+96.4R	25.1	+85.7R	25.8	+77.1R			
16 ga	4"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-6.2	+221R	-1.7	+147.3R	0.5	+110.5R	1.8	+88.4R	2.7	+73.7R	3.4	+63.1R	3.9	+55.3R	4.2	+49.1R	4.5	+44.2R				
	6"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-4.3	+220.9R	0.2	+147.2R	2.5	+110.4R	3.8	+88.3R	4.7	+73.6R	5.4	+63.1R	5.9	+55.2R	6.2	+49.1R	6.5	+44.2R				
	8"	q_a	q_f	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	
		F	-2.5	+220.7R	2.1	+147.1R	4.4	+110.3R	5.8	+88.3R	6.7	+73.5R	7.4	+63R	7.9	+55.2R	8.2	+49R	8.6	+44.1R				
	12"	q_a	q_f	830	1327	816	1313	769	1238	740	1192	722	1162	708	1140	698	1124	690	1111	683	1100			
		F	1	+220.2R	5.8	+146.7R	8.2	+110R	9.6	+88R	10.6	+73.3R	11.3	+62.9R	11.8	+55R	12.2	+48.9R	12.5	+44R				
	18"	q_a	q_f	753	1327	607	977	612	985	552	889	512	825	529	852	502	808	481	775	496	798			
		F	5.8	+219.3R	11	+146R	13.6	+109.4R	15.2	+87.5R	16.3	+72.9R	17	+62.5R	17.6	+54.6R	18	+48.6R	18.4	+43.7R				
	24"	q_a	q_f	596	960	502	808	455	733	427	687	408	657	394	635	384	619	377	606	370	596			
		F	10.2	+218.2R	15.9	+145.1R	18.8	+108.7R	20.6	+86.9R	21.8	+72.3R	22.6	+62R	23.2	+54.2R	23.7	+48.2R	24.1	+43.3R				
14 ga	4"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	-1.3	+121.3R	1.1	+80.8R	2.4	+60.6R	3.1	+48.5R	3.6	+40.4R	4	+34.6R	4.2	+30.3R	4.4	+26.9R	4.6	+24.3R				
	6"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	0.4	+121.1R	2.9	+80.8R	4.1	+60.6R	4.9	+48.4R	5.4	+40.4R	5.7	+34.6R	6	+30.3R	6.2	+26.9R	6.4	+24.2R				
	8"	q_a	q_f	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	
		F	2	+121R	4.6	+80.6R	5.8	+60.5R	6.6	+48.4R	7.1	+40.3R	7.5	+34.5R	7.8	+30.2R	8	+26.9R	8.2	+24.2R				
	12"	q_a	q_f	1244	2002	1129	1817	1071	1725	1036	1667	1009	1625	990	1595	976	1572	965	1554	956	1540			
		F	5.1	+120.5R	7.8	+80.3R	9.2	+60.2R	10	+48.2R	10.6	+40.1R	11	+34.4R	11.3	+30.1R	11.5	+26.7R	11.7	+24.1R				
	18"	q_a	q_f	1019	2002	829	1335	847	1363	767	1235	714	1150	741	1193	704	1134	676	1088	698	1124			
		F	9.3	+119.7R	12.4	+79.7R	14	+59.7R	15	+47.7R	15.6	+39.7R	16.1	+34R	16.4	+29.8R	16.7	+26.5R	16.9	+23.8R				
	24"	q_a	q_f	794	1278	679	1094	622	1001	587	946	564	909	548	882	536	862	526	847	518	835			
		F	13.2	+118.8R	16.8	+78.9R	18.6	+59R	19.7	+47.1R	20.5	+39.2R	21	+33.6R	21.4	+29.4R	21.7	+26.1R	22	+23.5R				

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Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)

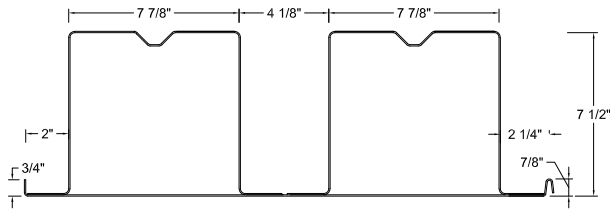


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																				
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"			
				q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f	q_a	q_f
12/4	20 ga	4"	q_a	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
		F		-38.6	+815.6R	-22.2	+543.7R	-14	+407.8R	-9.1	+326.2R	-5.9	+271.9R	-3.5	+233R	-1.8	+203.9R	-0.4	+181.2R	0.7	+163.1R		
		6"	q_a	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
		F		-36.4	+815.3R	-19.9	+543.5R	-11.6	+407.6R	-6.6	+326.1R	-3.3	+271.7R	-1	+232.9R	0.8	+203.8R	2.2	+181.1R	3.3	+163R		
		8"	q_a	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481	301	481
		F		-34.3	+814.9R	-17.6	+543.2R	-9.2	+407.4R	-4.2	+325.9R	-0.9	+271.6R	1.5	+232.8R	3.3	+203.7R	4.7	+181R	5.8	+162.9R		
12/4	18 ga	4"	q_a	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
		F		-15.2	+390.2R	-7.3	+260.1R	-3.4	+195.1R	-1	+156.1R	0.6	+130.1R	1.7	+111.5R	2.6	+97.5R	3.2	+86.7R	3.7	+78R		
		6"	q_a	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
		F		-13.2	+389.9R	-5.2	+259.9R	-1.2	+194.9R	1.2	+155.9R	2.8	+129.9R	3.9	+111.4R	4.8	+97.5R	5.4	+86.6R	6	+78R		
		8"	q_a	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857	536	857
		F		-11.4	+389.6R	-3.3	+259.7R	0.8	+194.7R	3.3	+155.8R	4.9	+129.8R	6.1	+111.2R	6.9	+97.3R	7.6	+86.5R	8.2	+77.9R		
12/4	16 ga	4"	q_a	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327
		F		-6.3	+220.9R	-1.8	+147.3R	0.4	+110.4R	1.8	+88.4R	2.7	+73.6R	3.3	+63.1R	3.8	+55.2R	4.2	+49.1R	4.5	+44.2R		
		6"	q_a	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327
		F		-4.6	+220.7R	0	+147.1R	2.3	+110.3R	3.7	+88.2R	4.6	+73.5R	5.3	+63R	5.8	+55.1R	6.2	+49R	6.5	+44.1R		
		8"	q_a	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327	830	1327
		F		-2.9	+220.4R	1.8	+146.9R	4.2	+110.1R	5.6	+88.1R	6.5	+73.4R	7.2	+62.9R	7.7	+55R	8.1	+48.9R	8.4	+44R		
12/4	14 ga	4"	q_a	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095
		F		-1.4	+121.2R	1.1	+80.8R	2.3	+60.6R	3.1	+48.5R	3.6	+40.4R	3.9	+34.6R	4.2	+30.3R	4.4	+26.9R	4.6	+24.2R		
		6"	q_a	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095
		F		0.1	+121R	2.7	+80.6R	4	+60.5R	4.8	+48.4R	5.3	+40.3R	5.7	+34.5R	5.9	+30.2R	6.2	+26.9R	6.3	+24.2R		
		8"	q_a	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095	1309	2095
		F		1.6	+120.7R	4.3	+80.4R	5.6	+60.3R	6.4	+48.2R	7	+40.2R	7.4	+34.4R	7.7	+30.1R	7.9	+26.8R	8.1	+24.1R		
12/4	14 ga	12"	q_a	1309	2095	1309	2095	1294	2083	1215	1956	1162	1871	1125	1810	1096	1765	1074	1730	1057	1702		
		F		4.2	+120.1R	7.2	+79.9R	8.7	+59.9R	9.6	+47.8R	10.2	+39.8R	10.7	+34.1R	11	+29.9R	11.3	+26.5R	11.5	+23.9R		
		18"	q_a	1309	2095	1125	1812	1069	1721	945	1521	862	1388	868	1397	815	1313	775	1247	787	1267		
		F		7.6	+119.1R	11.1	+79R	13	+59R	14.1	+47.1R	14.9	+39.2R	15.4	+33.6R	15.8	+29.3R	16.2	+26.1R	16.4	+23.4R		
		24"	q_a	1238	1994	975	1570	844	1359	765	1232	712	1147	675	1087	647	1041	625	1006	607	978		
		F		10.4	+118.1R	14.6	+78R	16.8	+58.1R	18.2	+46.3R	19.2	+38.4R	19.9	+32.8R	20.4	+28.7R	20.8	+25.4R	21.2	+22.9R		

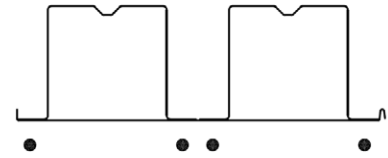
DEEP DECK PANELS

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Deep Deck



24/4 PATTERN



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w psf	t in	F _y ksi	F _u ksi	A _g in ² /ft	I _g in ⁴ /ft	y _b in	y _t in	S _g in ³ /ft	r in
20/20	4.93	0.0359/0.036	40.00	55.00	1.450	13.910	2.953	4.619	3.011	1.549
20/18	5.48	0.035/0.047	40.00	55.00	1.611	15.115	2.678	4.906	3.081	1.531
20/16	6.00	0.035/0.059	40.00	55.00	1.764	16.065	2.464	5.131	3.131	1.509
18/20	6.01	0.047/0.035	40.00	55.00	1.767	17.080	3.219	4.364	3.914	1.554
18/18	6.52	0.047/0.047	40.00	55.00	1.917	18.450	2.985	4.610	4.002	1.551
18/16	7.08	0.047/0.059	40.00	55.00	2.081	19.730	2.769	4.838	4.078	1.540
16/20	7.09	0.059/0.035	40.00	55.00	2.086	20.100	3.408	4.188	4.799	1.552
16/18	7.59	0.059/0.047	40.00	55.00	2.232	21.620	3.202	4.405	4.908	1.556
16/16	8.16	0.059/0.059	40.00	55.00	2.400	23.145	2.995	4.623	5.006	1.553

Gauge	Effective Section Modulus for Bending at F _y					Effective Moment of Inertia for Deflection at Service Load				
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only		
								I _d = (2I _e +I _g)/3	I ₊	I ₋
A _e ⁺ in ² /ft	S _e ⁺ in ³ /ft	y _b in	S _e ⁻ in ³ /ft	y _b in	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	I ₊ in ⁴ /ft	I ₋ in ⁴ /ft		
20/20	1.294	2.366	5.014	2.710	3.803	11.860	10.305	12.543	11.507	
20/18	1.247	2.348	5.344	2.859	4.131	12.545	11.810	13.402	12.912	
20/16	1.386	2.314	5.603	2.961	4.469	12.965	13.230	13.998	14.175	
18/20	1.429	3.733	4.435	3.227	3.974	16.555	12.825	16.730	14.243	
18/18	1.539	3.839	4.671	3.691	3.884	17.930	14.335	18.103	15.707	
18/16	1.685	3.807	4.949	3.832	4.195	18.840	16.075	19.137	17.293	
16/20	1.739	4.800	4.188	3.759	4.082	20.100	15.345	20.100	16.930	
16/18	1.851	4.908	4.405	4.413	3.853	21.620	17.005	21.620	18.543	
16/16	2.005	5.007	4.623	4.704	4.040	23.145	19.005	23.145	20.385	

Reactions and supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) (lbs/ft width)				LRFD (ϕPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
18	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
16	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
14	End	1408	1686	2080	2637	2154	2580	3183	4034
	Interior	2616	3031	3618	4449	3892	4509	5382	6617
Constants		h = 7.5"		r = 0.25"		θ = 90°			

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Deep Deck

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	378	262	193	148	117	94	78	66	56	48	42
		Φf_b	599	416	306	234	185	150	124	104	89	76	67
		L/360	-	-	-	134	94	69	51	40	31	25	20
		L/240	-	-	-	-	-	-	77	59	47	37	30
		L/180	-	-	-	-	-	-	-	-	-	-	41
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	433	300	221	169	134	108	89	75	64	55	48
		Φf_b	686	477	350	268	212	172	142	119	102	88	76
		L/360	-	-	-	-	-	-	-	-	-	55	45
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	541	376	276	211	167	135	112	94	80	69	60
		Φf_b	858	596	438	335	265	215	177	149	127	109	95
		L/360	-	-	-	-	-	-	104	80	63	51	41
L/240		-	-	-	-	-	-	-	-	-	-	-	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		
20/18	SS	f_b/Ω	375	260	191	146	116	94	77	65	55	48	42
		Φf_b	595	413	303	232	184	149	123	103	88	76	66
		L/360	-	-	-	143	100	73	55	42	33	27	22
		L/240	-	-	-	-	-	-	-	64	50	40	33
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	457	317	233	178	141	114	94	79	68	58	51
		Φf_b	724	503	370	283	224	181	150	126	107	92	80
		L/360	-	-	-	-	-	-	-	-	-	-	50
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	571	396	291	223	176	143	118	99	84	73	63
		Φf_b	905	629	462	354	279	226	187	157	134	115	101
		L/360	-	-	-	-	-	-	117	90	71	57	46
L/240		-	-	-	-	-	-	-	-	-	-	-	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		
20/16	SS	f_b/Ω	370	257	189	144	114	92	76	64	55	47	41
		Φf_b	586	407	299	229	181	147	121	102	87	75	65
		L/360	-	-	-	-	105	76	57	44	35	28	23
		L/240	-	-	-	-	-	-	-	-	52	42	34
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	DS	f_b/Ω	473	328	241	185	146	118	98	82	70	60	53
		Φf_b	750	521	383	293	231	187	155	130	111	96	83
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	
	TS	f_b/Ω	577	401	295	226	178	144	119	100	85	74	64
		Φf_b	916	636	467	358	283	229	189	159	135	117	102
		L/360	-	-	-	-	-	-	-	99	78	62	51
L/240		-	-	-	-	-	-	-	-	-	-	-	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-		

DEEP DECK PANELS

7.5DF-24 5.6

Deep Deck

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

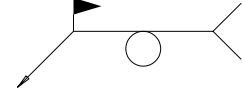
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft ²)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	766	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	844	620	475	375	304	251	211	180	155	135
		L/360	-	508	320	214	151	110	82	64	50	40	33
		L/240	-	-	-	-	226	165	124	95	75	60	49
		L/180	-	-	-	-	-	-	-	127	100	80	65
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	600	417	306	234	185	150	124	104	89	77	67
		Φf_b	952	661	486	372	294	238	197	165	141	121	106
		L/360	-	-	-	-	-	-	-	-	-	-	66
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	750	521	383	293	232	188	155	130	111	96	83
		Φf_b	1190	827	607	465	367	298	246	207	176	152	132
		L/360	-	-	-	-	-	-	153	118	93	74	60
L/240		-	-	-	-	-	-	-	-	-	-	-	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
16/18	SS	f_b/Ω	784	544	400	306	242	196	162	136	116	100	87
		Φf_b	1243	863	634	486	384	311	257	216	184	159	138
		L/360	-	-	344	231	162	118	89	68	54	43	35
		L/240	-	-	-	-	-	177	133	103	81	65	52
		L/180	-	-	-	-	-	-	-	-	108	86	70
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	705	489	360	275	217	176	146	122	104	90	78
		Φf_b	1118	776	570	437	345	279	231	194	165	143	124
		L/360	-	-	-	-	-	-	-	-	-	89	72
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	881	612	449	344	272	220	182	153	130	112	98
		Φf_b	1397	970	713	546	431	349	289	243	207	178	155
		L/360	-	-	-	-	-	-	168	129	102	81	66
L/240		-	-	-	-	-	-	-	-	-	-	-	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	
16/16	SS	f_b/Ω	799	555	408	312	247	200	165	139	118	102	89
		Φf_b	1268	881	647	495	391	317	262	220	188	162	141
		L/360	-	-	369	247	173	126	95	73	58	46	37
		L/240	-	-	-	-	-	190	142	110	86	69	56
		L/180	-	-	-	-	-	-	-	-	115	92	75
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	751	522	383	293	232	188	155	130	111	96	83
		Φf_b	1192	828	608	466	368	298	246	207	176	152	132
		L/360	-	-	-	-	-	-	-	-	-	-	79
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
	L/120	-	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	939	652	479	367	290	235	194	163	139	120	104
		Φf_b	1490	1034	760	582	460	372	308	259	220	190	166
		L/360	-	-	-	-	-	-	185	142	112	90	73
L/240		-	-	-	-	-	-	-	-	-	-	-	
L/180		-	-	-	-	-	-	-	-	-	-	-	
L/120	-	-	-	-	-	-	-	-	-	-	-	-	

DEEP DECK PANELS

5.6 7.5DF-24

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^6 in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
24/4	20 ga	4"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	-4.7 +130.8R	-2.1 +87.2R	-0.8 +65.4R	0 +52.3R	0.6 +43.6R	0.9 +37.4R	1.2 +32.7R	1.4 +29.1R	1.6 +26.2R										
		6"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	-4.3 +130.7R	-1.6 +87.1R	-0.3 +65.3R	0.5 +52.3R	1 +43.6R	1.4 +37.3R	1.7 +32.7R	1.9 +29R	2.1 +26.1R										
		8"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282
			F	-3.9 +130.6R	-1.2 +87.1R	0.1 +65.3R	0.9 +52.2R	1.5 +43.5R	1.8 +37.3R	2.1 +32.6R	2.4 +29R	2.5 +26.1R										
	12"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	
		F	-3.2 +130.5R	-0.5 +86.9R	0.9 +65.2R	1.8 +52.1R	2.3 +43.4R	2.7 +37.2R	3 +32.6R	3.3 +28.9R	3.4 +26.1R											
	18"	q_a	q_f	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	777	1282	
		F	-2.4 +130.2R	0.6 +86.7R	2 +65R	2.9 +51.9R	3.5 +43.3R	4 +37.1R	4.3 +32.4R	4.5 +28.8R	4.8 +25.9R											
	24"	q_a	q_f	777	1282	777	1282	777	1282	768	1267	731	1206	704	1161	683	1128	667	1101	654	1080	
		F	-1.6 +129.9R	1.5 +86.4R	3 +64.7R	4 +51.7R	4.7 +43R	5.1 +36.9R	5.5 +32.2R	5.8 +28.6R	6 +25.8R											
	18 ga	4"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	-2.6 +88R	-0.8 +58.7R	0.1 +44R	0.6 +35.2R	1 +29.3R	1.2 +25.2R	1.4 +22R	1.5 +19.6R	1.7 +17.6R										
		6"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	-2.2 +88R	-0.4 +58.6R	0.5 +44R	1 +35.2R	1.4 +29.3R	1.6 +25.1R	1.8 +22R	2 +19.5R	2.1 +17.6R										
		8"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157
			F	-1.9 +87.9R	-0.1 +58.6R	0.8 +43.9R	1.4 +35.2R	1.7 +29.3R	2 +25.1R	2.2 +22R	2.3 +19.5R	2.5 +17.6R										
	12"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	
		F	-1.3 +87.8R	0.6 +58.5R	1.5 +43.8R	2.1 +35.1R	2.5 +29.2R	2.8 +25R	3 +21.9R	3.1 +19.5R	3.2 +17.5R											
	18"	q_a	q_f	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1307	2157	1305	2154	1253	2068	1275	2104	
		F	-0.6 +87.5R	1.4 +58.3R	2.5 +43.6R	3.1 +34.9R	3.5 +29.1R	3.8 +24.9R	4.1 +21.8R	4.2 +19.4R	4.4 +17.4R											
	24"	q_a	q_f	1307	2157	1307	2157	1296	2139	1203	1985	1139	1879	1092	1802	1056	1743	1028	1697	1006	1660	
		F	0.1 +87.3R	2.2 +58R	3.4 +43.4R	4 +34.7R	4.5 +28.9R	4.8 +24.7R	5.1 +21.6R	5.3 +19.2R	5.5 +17.3R											
16 ga	4"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	-1.4 +62.6R	-0.1 +41.7R	0.5 +31.3R	0.9 +25R	1.1 +20.9R	1.3 +17.9R	1.5 +15.6R	1.6 +13.9R	1.6 +12.5R											
	6"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	-1.1 +62.5R	0.2 +41.7R	0.8 +31.3R	1.2 +25R	1.5 +20.8R	1.7 +17.9R	1.8 +15.6R	1.9 +13.9R	2 +12.5R											
	8"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	
		F	-0.8 +62.5R	0.5 +41.6R	1.2 +31.2R	1.6 +25R	1.8 +20.8R	2 +17.8R	2.2 +15.6R	2.3 +13.9R	2.4 +12.5R											
12"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670		
	F	-0.3 +62.3R	1.1 +41.5R	1.8 +31.1R	2.2 +24.9R	2.5 +20.7R	2.7 +17.8R	2.8 +15.5R	3 +13.8R	3.1 +12.4R												
18"	q_a	q_f	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670	1618	2670		
	F	0.4 +62.1R	1.9 +41.3R	2.7 +31R	3.1 +24.7R	3.4 +20.6R	3.7 +17.6R	3.8 +15.4R	4 +13.7R	4.1 +12.3R												
24"	q_a	q_f	1618	2670	1618	2670	1618	2670	1564	2581	1487	2453	1430	2359	1387	2288	1353	2232	1326	2187		
	F	1 +61.9R	2.6 +41.1R	3.4 +30.8R	4 +24.6R	4.3 +20.4R	4.6 +17.5R	4.7 +15.3R	4.9 +13.6R	5 +12.2R												

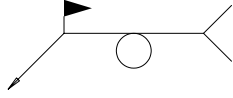
7.5DF-12 24/4

Support Attachment: 0.5" Effective Dia. Arc Spot Weld

Side Seam Attachment: Top Seam Side-Lap Weld

7.5DF-24 5.6

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		
24/4	16 ga	4"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-8.1	+309.3R	-1.6	+206.1R	1.7	+154.6R	3.6	+123.6R	4.9	+103R	5.8	+88.3R	6.5	+77.3R	7.1	+68.7R	7.5	+61.8R	
		6"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-6	+308.8R	0.7	+205.7R	4.1	+154.2R	6.2	+123.3R	7.6	+102.7R	8.6	+88R	9.3	+77R	9.9	+68.4R	10.3	+61.6R	
		8"	q_a	q_f	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629	390	629
			F	-4.3	+308.2R	2.8	+205.1R	6.4	+153.7R	8.6	+122.8R	10.1	+102.3R	11.2	+87.6R	11.9	+76.7R	12.6	+68.1R	13.1	+61.3R	
	12"	q_a	q_f	390	629	390	629	390	629	390	629	374	602	360	580	350	564	342	551	336	540	
		F	-1.4	+307.1R	6.4	+204R	10.5	+152.6R	13	+121.8R	14.7	+101.3R	16	+86.7R	16.9	+75.8R	17.7	+67.3R	18.3	+60.6R		
	18"	q_a	q_f	390	629	390	629	364	585	323	520	295	474	292	470	274	441	260	419	261	421	
		F	1.8	+305.6R	10.7	+202.3R	15.6	+150.8R	18.7	+120.1R	20.9	+99.7R	22.5	+85.2R	23.7	+74.3R	24.6	+65.9R	25.4	+59.2R		
	24"	q_a	q_f	390	629	353	569	304	490	273	440	252	406	237	382	225	363	216	348	209	337	
		F	4.1	+304.4R	14.1	+200.8R	19.7	+149.2R	23.5	+118.4R	26.1	+97.9R	28.1	+83.4R	29.7	+72.6R	30.9	+64.3R	31.9	+57.6R		
	18 ga	4"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-3.5	+208.1R	0.9	+138.7R	3.1	+104R	4.5	+83.2R	5.4	+69.3R	6	+59.4R	6.5	+52R	6.8	+46.2R	7.1	+41.6R	
		6"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-1.7	+207.7R	2.9	+138.3R	5.3	+103.6R	6.7	+82.9R	7.7	+69R	8.3	+59.2R	8.9	+51.7R	9.3	+46R	9.6	+41.4R	
		8"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844	524	844
			F	-0.2	+207.2R	4.7	+137.8R	7.3	+103.2R	8.8	+82.5R	9.8	+68.7R	10.6	+58.8R	11.1	+51.5R	11.6	+45.7R	11.9	+41.1R	
	12"	q_a	q_f	524	844	524	844	524	844	524	844	524	844	524	844	519	835	508	819	500	805	
		F	2.3	+206.2R	7.8	+136.8R	10.8	+102.3R	12.6	+81.6R	13.8	+67.9R	14.8	+58.1R	15.4	+50.7R	16	+45R	16.4	+40.5R		
	18"	q_a	q_f	524	844	524	844	524	844	469	755	430	693	429	691	405	651	385	620	389	626	
		F	5	+204.9R	11.5	+135.4R	15.2	+100.8R	17.5	+80.1R	19.1	+66.4R	20.3	+56.7R	21.3	+49.4R	22	+43.8R	22.6	+39.3R		
	24"	q_a	q_f	524	844	499	803	434	699	394	634	366	589	346	557	331	532	319	513	309	498	
		F	7	+203.9R	14.4	+134.1R	18.8	+99.3R	21.6	+78.6R	23.7	+64.9R	25.2	+55.2R	26.4	+48R	27.4	+42.4R	28.2	+38R		
20 ga	4"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	-0.9	+147.8R	2.2	+98.5R	3.8	+73.9R	4.8	+59.1R	5.4	+49.2R	5.9	+42.2R	6.2	+36.9R	6.5	+32.8R	6.7	+29.5R		
	6"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	0.6	+147.4R	4	+98.1R	5.8	+73.5R	6.8	+58.8R	7.5	+49R	8	+42R	8.4	+36.7R	8.7	+32.6R	8.9	+29.3R		
	8"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	
		F	2	+147R	5.6	+97.7R	7.5	+73.1R	8.7	+58.4R	9.4	+48.7R	10	+41.7R	10.4	+36.4R	10.7	+32.4R	11	+29.1R		
12"	q_a	q_f	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060	658	1060		
	F	4.2	+146.1R	8.4	+96.8R	10.7	+72.3R	12.1	+57.6R	13	+47.9R	13.7	+41R	14.3	+35.8R	14.7	+31.8R	15	+28.6R			
18"	q_a	q_f	658	1060	658	1060	658	1060	627	1009	578	930	579	932	547	881	522	841	529	851		
	F	6.6	+145R	11.7	+95.5R	14.6	+71R	16.4	+56.3R	17.7	+46.6R	18.7	+39.8R	19.5	+34.6R	20	+30.7R	20.5	+27.5R			
24"	q_a	q_f	658	1060	653	1051	573	923	523	843	489	788	464	748	445	717	431	693	419	674		
	F	8.4	+144.1R	14.3	+94.4R	17.8	+69.7R	20.1	+55R	21.8	+45.3R	23.1	+38.4R	24.1	+33.3R	24.9	+29.4R	25.5	+26.3R			

7.5DF-12 24/4

Support Attachment: #12 SD HWH Screw

Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS