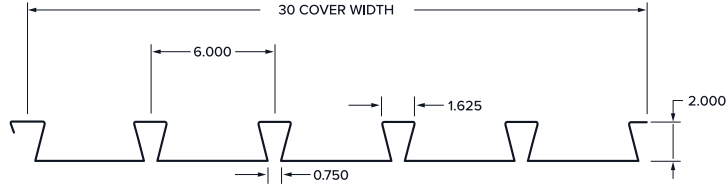


2" Versa-Dek® S (2.0VWS)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	24	2.70
18	0.0474		3.56
16	0.0598		4.49



ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
20	40	0.511	0.511	0.511	0.437	0.390	0.346	9330	8292	3519	933	1827
18	40	0.674	0.674	0.674	0.627	0.514	0.475	12319	11374	4617	1561	3047
16	40	0.848	0.848	0.848	0.828	0.646	0.615	15481	14725	5769	2390	4654

- Notes:**
1. Section properties are calculated in accordance with the AISI S100-16.
 2. Web crippling design strengths* are based on minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)											SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)											
		6 - 0	6 - 6	7 - 0	7 - 6	8 - 0	9 - 0	10 - 0	11 - 0	12 - 0	13 - 0		
Single	20	173 / 155	147 / 122	127 / 98	111 / 79	97 / 65	77 / 46	62 / 33	51 / 25	43 / 19	37 / 15	14 - 2	
	18	228 / 205	194 / 161	168 / 129	146 / 105	128 / 86	101 / 61	82 / 44	68 / 33	57 / 26	49 / 20	17 - 8	
	16	287 / 257	244 / 202	211 / 162	183 / 132	161 / 109	127 / 76	103 / 56	85 / 42	72 / 32	61 / 25	20 - 10	
Double	20	152 / 374	129 / 294	112 / 235	97 / 191	86 / 158	68 / 111	55 / 81	46 / 61	38 / 47	33 / 37	17 - 3	
	18	208 / 494	177 / 388	153 / 311	134 / 253	118 / 208	93 / 146	75 / 107	62 / 80	52 / 62	45 / 49	21 - 5	
	16	269 / 621	229 / 488	198 / 391	173 / 318	152 / 262	120 / 184	98 / 134	81 / 101	68 / 78	58 / 61	25 - 1	
Triple	20	188 / 293	161 / 230	139 / 184	121 / 150	107 / 123	85 / 87	69 / 63	57 / 47	48 / 37	41 / 29	17 - 5	
	18	258 / 386	220 / 304	191 / 243	166 / 198	146 / 163	116 / 114	94 / 83	78 / 63	65 / 48	56 / 38	21 - 8	
	16	333 / 486	285 / 382	246 / 306	215 / 249	189 / 205	150 / 144	122 / 105	101 / 79	85 / 61	72 / 48	25 - 5	

- Notes:**
3. Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing. Check web crippling if minimums are not met.
 4. Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 5. "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 6. See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	3 - 1	3 - 1	3 - 1
18	40	4 - 1	3 - 11	3 - 11
16	40	4 - 8	4 - 5	4 - 4

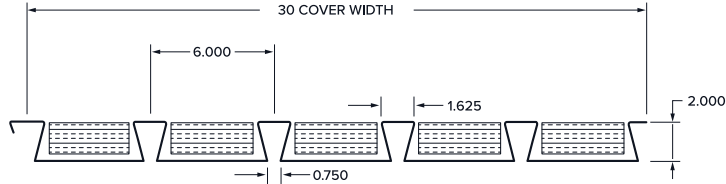
Notes:

7. Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 3" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

2" Versa-Dek® S Acoustical (2.0VWSA)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	24	2.51
18	0.0474		3.32
16	0.0598		4.18



ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
20	40	0.483	0.483	0.483	0.427	0.383	0.345	9178	8268	3519	933	1827
18	40	0.637	0.637	0.637	0.607	0.506	0.473	12118	11327	4617	1561	3047
16	40	0.802	0.802	0.802	0.794	0.636	0.612	15227	14668	5769	2390	4654

- Notes:**
1. Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers.
 2. Web crippling design strengths* are based on minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		6 - 0	6 - 6	7 - 0	7 - 6	8 - 0	9 - 0	10 - 0	11 - 0	12 - 0	13 - 0	
Single	20	170 / 147	145 / 115	125 / 92	109 / 75	96 / 62	76 / 43	61 / 32	51 / 24	42 / 18	36 / 14	14 - 0
	18	224 / 193	191 / 152	165 / 122	144 / 99	126 / 82	100 / 57	81 / 42	67 / 31	56 / 24	48 / 19	17 - 7
	16	282 / 243	240 / 191	207 / 153	180 / 125	159 / 103	125 / 72	102 / 53	84 / 39	70 / 30	60 / 24	20 - 10
Double	20	151 / 353	129 / 278	111 / 223	97 / 181	85 / 149	68 / 105	55 / 76	45 / 57	38 / 44	33 / 35	17 - 1
	18	207 / 467	177 / 367	152 / 294	133 / 239	117 / 197	93 / 138	75 / 101	62 / 76	52 / 58	45 / 46	21 - 3
	16	267 / 587	228 / 461	197 / 369	172 / 300	151 / 247	120 / 174	97 / 127	80 / 95	68 / 73	58 / 58	25 - 0
Triple	20	188 / 277	160 / 218	139 / 174	121 / 142	107 / 117	84 / 82	68 / 60	57 / 45	48 / 35	41 / 27	17 - 4
	18	257 / 365	220 / 287	190 / 230	166 / 187	146 / 154	115 / 108	94 / 79	78 / 59	65 / 46	56 / 36	21 - 7
	16	332 / 459	284 / 361	245 / 289	214 / 235	189 / 194	149 / 136	121 / 99	100 / 75	84 / 57	72 / 45	25 - 4

- Notes:**
3. Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing. Check web crippling if minimums are not met.
 4. Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 5. "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 6. See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	3 - 1	3 - 1	3 - 0
18	40	4 - 1	3 - 10	3 - 9
16	40	4 - 8	4 - 4	4 - 4

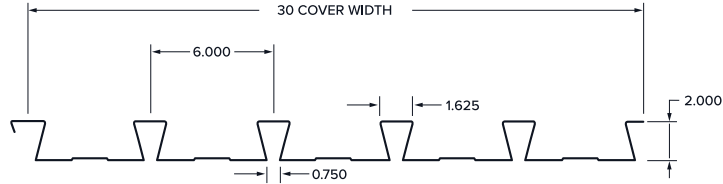
Notes:

7. Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 3" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

2" Versa-Dek® LS (2.0VWLS)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	24	2.25
20	0.0358		2.72
18	0.0474		3.60
16	0.0598		4.53



ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
22	40	0.417	0.417	0.417	0.406	0.304	0.309	7282	7401	2914	653	1282
20	40	0.506	0.506	0.505	0.506	0.386	0.379	9246	9074	3519	933	1827
18	40	0.667	0.667	0.667	0.667	0.510	0.507	12207	12135	4617	1561	3047
16	40	0.838	0.838	0.838	0.838	0.640	0.640	15339	15339	5769	2390	4654

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16.
 - Web crippling design strengths* are based on minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		6 - 0	6 - 6	7 - 0	7 - 6	8 - 0	9 - 0	10 - 0	11 - 0	12 - 0	13 - 0	
Single	22	135 / 127	115 / 100	99 / 80	86 / 65	76 / 53	60 / 38	49 / 27	40 / 21	34 / 16	-	11 - 4
	20	171 / 153	146 / 121	126 / 97	110 / 79	96 / 65	76 / 45	62 / 33	51 / 25	43 / 19	36 / 15	14 - 0
	18	226 / 202	193 / 159	166 / 127	145 / 104	127 / 85	100 / 60	81 / 44	67 / 33	57 / 25	48 / 20	17 - 6
	16	284 / 254	242 / 200	209 / 160	182 / 130	160 / 107	126 / 75	102 / 55	85 / 41	71 / 32	61 / 25	20 - 8
Double	22	135 / 305	115 / 240	100 / 192	87 / 156	76 / 129	60 / 90	49 / 66	41 / 50	34 / 38	29 / 30	13 - 11
	20	165 / 370	141 / 291	122 / 233	106 / 190	94 / 156	74 / 110	60 / 80	50 / 60	42 / 46	36 / 36	17 - 1
	18	221 / 488	189 / 384	163 / 307	142 / 250	125 / 206	99 / 145	80 / 105	67 / 79	56 / 61	48 / 48	21 - 2
	16	279 / 613	239 / 483	206 / 386	180 / 314	158 / 259	125 / 182	102 / 133	84 / 100	71 / 77	60 / 60	24 - 10
Triple	22	168 / 239	143 / 188	124 / 150	108 / 122	95 / 101	75 / 71	61 / 52	51 / 39	43 / 30	36 / 23	14 - 1
	20	205 / 290	176 / 228	152 / 182	132 / 148	117 / 122	92 / 86	75 / 63	62 / 47	52 / 36	45 / 28	17 - 4
	18	274 / 382	235 / 300	203 / 241	177 / 196	156 / 161	124 / 113	100 / 82	83 / 62	70 / 48	60 / 38	21 - 6
	16	347 / 480	296 / 378	256 / 302	224 / 246	197 / 203	156 / 142	127 / 104	105 / 78	88 / 60	75 / 47	25 - 2

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
22	40	2 - 10	2 - 10	2 - 10
20	40	3 - 4	3 - 3	3 - 3
18	40	4 - 4	4 - 0	3 - 11
16	40	4 - 8	4 - 5	4 - 4

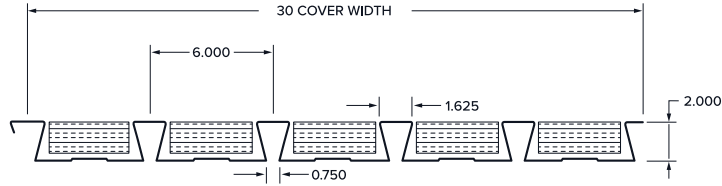
Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 3" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

2" Versa-Dek® LS Acoustical (2.0VWLSA)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	24	2.08
20	0.0358		2.53
18	0.0474		3.34
16	0.0598		4.21



ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
22	40	0.393	0.393	0.393	0.393	0.298	0.308	7146	7373	2914	653	1282
20	40	0.476	0.476	0.476	0.476	0.379	0.377	9075	9027	3519	933	1827
18	40	0.628	0.628	0.628	0.628	0.500	0.500	11981	11981	4617	1561	3047
16	40	0.789	0.789	0.789	0.789	0.629	0.629	15054	15054	5769	2390	4654

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers.
 - Web crippling design strengths* are based on minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		6 - 0	6 - 6	7 - 0	7 - 6	8 - 0	9 - 0	10 - 0	11 - 0	12 - 0	13 - 0	
Single	22	132 / 119	113 / 94	97 / 75	85 / 61	74 / 50	59 / 35	48 / 26	39 / 19	33 / 15	-	11 - 2
	20	168 / 144	143 / 114	123 / 91	108 / 74	95 / 61	75 / 43	60 / 31	50 / 23	42 / 18	36 / 14	13 - 10
	18	222 / 191	189 / 150	163 / 120	142 / 98	125 / 80	99 / 56	80 / 41	66 / 31	55 / 24	47 / 19	17 - 5
	16	279 / 240	238 / 188	205 / 151	178 / 123	157 / 101	124 / 71	100 / 52	83 / 39	70 / 30	59 / 24	20 - 7
Double	22	134 / 287	115 / 226	99 / 181	87 / 147	76 / 121	60 / 85	49 / 62	40 / 47	34 / 36	29 / 28	13 - 8
	20	165 / 348	141 / 274	121 / 219	106 / 178	93 / 147	74 / 103	60 / 75	50 / 56	42 / 44	35 / 34	16 - 11
	18	218 / 459	186 / 361	161 / 289	141 / 235	124 / 194	98 / 136	79 / 99	66 / 75	55 / 57	47 / 45	21 - 1
	16	274 / 578	234 / 454	202 / 364	177 / 296	155 / 244	123 / 171	100 / 125	83 / 94	69 / 72	59 / 57	24 - 9
Triple	22	167 / 225	143 / 177	123 / 142	108 / 115	95 / 95	75 / 67	61 / 49	50 / 36	42 / 28	36 / 22	13 - 11
	20	204 / 272	175 / 214	151 / 172	132 / 139	116 / 115	92 / 81	75 / 59	62 / 44	52 / 34	44 / 27	17 - 1
	18	271 / 360	232 / 283	200 / 226	175 / 184	154 / 152	122 / 107	99 / 78	82 / 58	69 / 45	59 / 35	21 - 4
	16	341 / 452	291 / 356	252 / 285	220 / 231	193 / 191	153 / 134	124 / 98	103 / 73	87 / 57	74 / 44	25 - 1

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
22	40	2 - 9	2 - 9	2 - 9
20	40	3 - 4	3 - 2	3 - 1
18	40	4 - 4	3 - 10	3 - 9
16	40	4 - 8	4 - 4	4 - 4

Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 3" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.