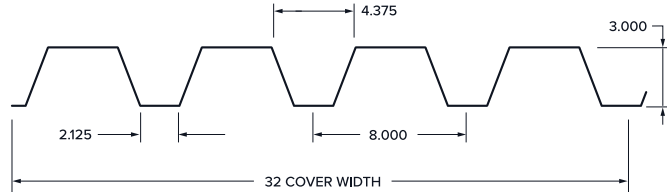


3" N Deck (NW32®)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	32	1.86
20	0.0358		2.26
18	0.0474		2.99
16	0.0598		3.76



ICC-ES APPROVED
REFER TO ESR-1169

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	50	0.694	0.755	0.649	0.741	0.352	0.386	10546	11548	2184	539	1087
20	50	0.875	0.935	0.836	0.926	0.457	0.496	13691	14842	3779	777	1559
18	50	1.213	1.254	1.192	1.252	0.672	0.711	20109	21279	6618	1317	2624
16	50	1.568	1.581	1.561	1.581	0.902	0.937	27015	28060	9158	2032	4030

- 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)										
		8 - 0	10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	
Single	22	110 / 89	70 / 45	58 / 34	49 / 26	42 / 21	36 / 17	31 / 13	27 / 11	-	-	17 - 6
	20	143 / 112	91 / 57	75 / 43	63 / 33	54 / 26	47 / 21	41 / 17	36 / 14	28 / 10	23 / 7	22 - 9
	18	209 / 155	134 / 80	111 / 60	93 / 46	79 / 36	68 / 29	60 / 24	52 / 19	41 / 14	34 / 10	33 - 6
	16	281 / 201	180 / 103	149 / 77	125 / 59	107 / 47	92 / 37	80 / 30	70 / 25	56 / 18	45 / 13	40 - 0
Double	22	109 / 233	75 / 119	62 / 90	53 / 69	45 / 54	39 / 43	34 / 35	30 / 29	24 / 20	-	21 - 7
	20	151 / 289	98 / 148	81 / 111	68 / 85	58 / 67	50 / 54	44 / 44	38 / 36	30 / 25	25 / 18	28 - 1
	18	219 / 387	141 / 198	116 / 149	98 / 115	83 / 90	72 / 72	63 / 59	55 / 48	44 / 34	35 / 25	40 - 0
	16	289 / 488	186 / 250	154 / 188	129 / 145	110 / 114	95 / 91	83 / 74	73 / 61	58 / 43	47 / 31	40 - 0
Triple	22	123 / 182	93 / 93	77 / 70	65 / 54	56 / 43	48 / 34	42 / 28	-	-	-	21 - 11
	20	177 / 226	121 / 116	101 / 87	85 / 67	72 / 53	62 / 42	55 / 34	-	-	-	28 - 6
	18	272 / 303	175 / 155	145 / 117	122 / 90	104 / 71	90 / 57	78 / 46	-	-	-	40 - 0
	16	359 / 382	231 / 196	191 / 147	161 / 113	137 / 89	119 / 71	103 / 58	-	-	-	40 - 0

- 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 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.
 - Values in RED are shown for use in determining deck capacity under deflection limits more stringent than Span/240. The total loads shown are not to 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	50	4 - 3	4 - 2	4 - 1
20	50	5 - 3	5 - 3	4 - 4
18	50	5 - 8	5 - 11	4 - 4
16	50	6 - 0	5 - 11	4 - 4

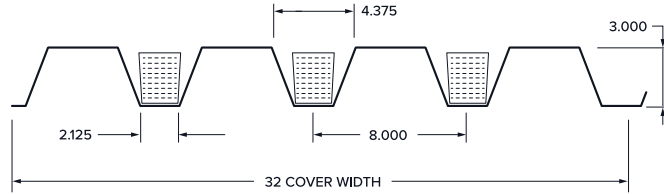
Notes:

- 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.

3" N Deck Acoustical (NW32A®)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	32	1.76
20	0.0358		2.14
18	0.0474		2.82
16	0.0598		3.56



ICC-ES APPROVED
REFER TO ESR-1169

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	50	0.673	0.733	0.629	0.718	0.335	0.361	10024	10805	1637	511	1080
20	50	0.850	0.908	0.813	0.900	0.438	0.470	13099	14085	2832	742	1550
18	50	1.181	1.219	1.161	1.218	0.649	0.680	19423	20354	4958	1267	2610
16	50	1.526	1.537	1.520	1.537	0.874	0.900	26176	26954	6857	1965	4012

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers applied in accordance with SDI white paper "Perforated Metal Deck Design with Commentary".
 - 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)										
		8 - 0	10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	
Single	22	104 / 86	67 / 44	55 / 33	46 / 26	40 / 20	34 / 16	30 / 13	26 / 11	-	-	16 - 8
	20	136 / 109	87 / 56	72 / 42	61 / 32	52 / 25	45 / 20	39 / 17	34 / 14	27 / 10	-	21 - 9
	18	202 / 151	129 / 77	107 / 58	90 / 45	77 / 35	66 / 28	58 / 23	51 / 19	40 / 13	32 / 10	32 - 4
	16	273 / 195	175 / 100	144 / 75	121 / 58	103 / 46	89 / 36	78 / 30	68 / 24	54 / 17	44 / 13	40 - 0
Double	22	106 / 226	69 / 116	58 / 87	49 / 67	42 / 53	36 / 42	31 / 34	28 / 28	22 / 20	-	20 - 6
	20	142 / 280	92 / 144	76 / 108	64 / 83	55 / 65	47 / 52	41 / 43	36 / 35	29 / 25	23 / 18	26 - 10
	18	207 / 376	134 / 193	111 / 145	93 / 112	80 / 88	69 / 70	60 / 57	53 / 47	42 / 33	34 / 24	39 - 10
	16	275 / 475	177 / 243	147 / 183	124 / 141	105 / 111	91 / 89	79 / 72	70 / 59	55 / 42	45 / 30	40 - 0
Triple	22	123 / 177	86 / 91	71 / 68	60 / 52	52 / 41	45 / 33	39 / 27	-	-	-	20 - 10
	20	175 / 219	114 / 112	95 / 84	80 / 65	68 / 51	59 / 41	51 / 33	-	-	-	27 - 3
	18	257 / 295	166 / 151	138 / 113	116 / 87	99 / 69	86 / 55	75 / 45	-	-	-	40 - 0
	16	341 / 371	220 / 190	183 / 143	154 / 110	131 / 87	113 / 69	99 / 56	-	-	-	40 - 0

- 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 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.
 - Values in RED are shown for use in determining deck capacity under deflection limits more stringent than Span/240. The total loads shown are not to 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	50	4 - 0	4 - 0	4 - 0
20	50	5 - 1	5 - 1	4 - 4
18	50	5 - 8	5 - 11	4 - 4
16	50	6 - 0	5 - 11	4 - 4

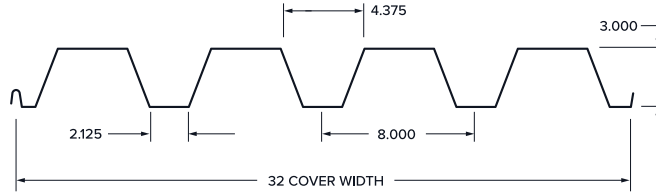
Notes:

- 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.

3" N Deck Interlocking (NW32I®)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	32	1.88
20	0.0358		2.28
18	0.0474		3.02
16	0.0598		3.80



ICC-ES APPROVED
REFER TO ESR-1169

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	50	0.687	0.762	0.642	0.754	0.348	0.405	10420	12117	2184	539	1087
20	50	0.864	0.936	0.826	0.933	0.451	0.514	13517	15383	3779	777	1559
18	50	1.199	1.242	1.178	1.242	0.663	0.721	19856	21582	6618	1317	2624
16	50	1.549	1.562	1.543	1.562	0.890	0.934	26654	27967	9158	2032	4030

- 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)										
		8 - 0	10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	
Single	22	109 / 88	69 / 45	57 / 34	48 / 26	41 / 20	35 / 16	31 / 13	27 / 11	-	-	17 - 4
	20	141 / 111	90 / 57	74 / 43	63 / 33	53 / 26	46 / 21	40 / 17	35 / 14	28 / 10	23 / 7	22 - 6
	18	207 / 154	132 / 79	109 / 59	92 / 45	78 / 36	68 / 29	59 / 23	52 / 19	41 / 13	33 / 10	33 - 1
	16	278 / 198	178 / 102	147 / 76	123 / 59	105 / 46	91 / 37	79 / 30	69 / 25	55 / 17	44 / 13	40 - 0
Double	22	109 / 235	79 / 120	65 / 90	55 / 70	47 / 55	41 / 44	35 / 36	31 / 29	25 / 21	-	21 - 4
	20	156 / 289	101 / 148	84 / 111	71 / 86	60 / 67	52 / 54	45 / 44	40 / 36	32 / 25	26 / 18	27 - 8
	18	222 / 384	143 / 196	118 / 148	99 / 114	85 / 89	73 / 72	64 / 58	56 / 48	44 / 34	36 / 25	40 - 0
	16	288 / 482	185 / 247	153 / 186	129 / 143	110 / 112	95 / 90	83 / 73	73 / 60	57 / 42	47 / 31	40 - 0
Triple	22	123 / 184	97 / 94	81 / 71	68 / 55	58 / 43	51 / 34	44 / 28	-	-	-	21 - 8
	20	177 / 226	126 / 116	104 / 87	88 / 67	75 / 53	65 / 42	56 / 34	-	-	-	28 - 1
	18	275 / 300	178 / 154	147 / 115	124 / 89	106 / 70	91 / 56	79 / 46	-	-	-	40 - 0
	16	358 / 377	230 / 193	191 / 145	161 / 112	137 / 88	118 / 70	103 / 57	-	-	-	40 - 0

- 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 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.
 - Values in RED are shown for use in determining deck capacity under deflection limits more stringent than Span/240. The total loads shown are not to 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	50	4 - 5	4 - 2	4 - 1
20	50	5 - 4	5 - 4	4 - 4
18	50	5 - 8	5 - 11	4 - 4
16	50	6 - 0	5 - 11	4 - 4

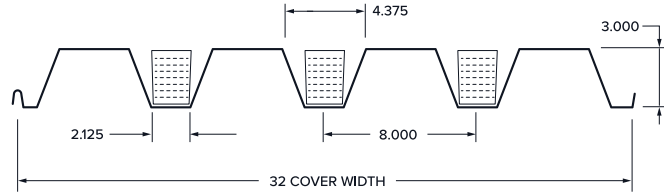
Notes:

- 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.

3" N Deck Interlocking Acoustical (NW32IA®)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	32	1.78
20	0.0358		2.16
18	0.0474		2.86
16	0.0598		3.60



ICC-ES APPROVED
REFER TO ESR-1169

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)	Mn,p/Ω (in-lb/ft)	Mn,n/Ω (in-lb/ft)	Vn/Ω (lb/ft)	*Rbe/Ω (lb/ft)	*Rbi/Ω (lb/ft)
22	50	0.666	0.740	0.622	0.732	0.331	0.384	9902	11498	1637	511	1080
20	50	0.840	0.909	0.803	0.906	0.432	0.490	12930	14663	2832	742	1550
18	50	1.167	1.208	1.147	1.208	0.640	0.691	19172	20687	4958	1267	2610
16	50	1.507	1.519	1.502	1.519	0.862	0.898	25816	26881	6857	1965	4012

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers applied in accordance with SDI white paper "Perforated Metal Deck Design with Commentary".
 - 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)										
		8 - 0	10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	
Single	22	103 / 85	66 / 44	55 / 33	46 / 25	39 / 20	34 / 16	29 / 13	26 / 11	-	-	16 - 6
	20	135 / 108	86 / 55	71 / 41	60 / 32	51 / 25	44 / 20	38 / 16	34 / 13	27 / 9	-	21 - 6
	18	200 / 149	128 / 77	106 / 57	89 / 44	76 / 35	65 / 28	57 / 23	50 / 19	39 / 13	32 / 10	31 - 11
	16	269 / 193	172 / 99	142 / 74	120 / 57	102 / 45	88 / 36	76 / 29	67 / 24	53 / 17	43 / 12	40 - 0
Double	22	108 / 228	74 / 117	61 / 88	52 / 68	44 / 53	38 / 43	33 / 35	29 / 29	23 / 20	-	20 - 3
	20	147 / 281	96 / 144	79 / 108	67 / 83	57 / 65	49 / 52	43 / 43	38 / 35	30 / 25	24 / 18	26 - 6
	18	211 / 373	136 / 191	113 / 143	95 / 110	81 / 87	70 / 70	61 / 57	54 / 47	42 / 33	34 / 24	39 - 4
	16	274 / 469	177 / 240	146 / 180	123 / 139	105 / 109	91 / 87	79 / 71	70 / 59	55 / 41	45 / 30	40 - 0
Triple	22	123 / 179	90 / 91	75 / 69	64 / 53	55 / 42	47 / 33	41 / 27	-	-	-	20 - 7
	20	176 / 220	118 / 112	98 / 85	83 / 65	71 / 51	61 / 41	54 / 33	-	-	-	26 - 11
	18	261 / 292	169 / 149	140 / 112	118 / 86	101 / 68	87 / 54	76 / 44	-	-	-	39 - 11
	16	340 / 367	220 / 188	182 / 141	154 / 109	131 / 86	113 / 68	99 / 56	-	-	-	40 - 0

- 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 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.
 - Values in RED are shown for use in determining deck capacity under deflection limits more stringent than Span/240. The total loads shown are not to 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	50	4 - 2	4 - 1	4 - 0
20	50	5 - 3	5 - 2	4 - 4
18	50	5 - 8	5 - 11	4 - 4
16	50	6 - 0	5 - 11	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.