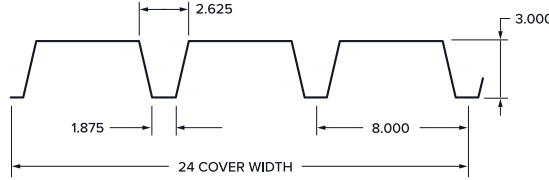


N Deck

PROPERTIES

| Gage | Thickness (in) | Cover (in) | Weight (psf) |
|------|----------------|------------|--------------|
| 22 | 0.0295 | 24 | 2.05 |
| 20 | 0.0358 | | 2.48 |
| 18 | 0.0474 | | 3.29 |
| 16 | 0.0598 | | 4.14 |



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 | 0.759 | 0.886 | 0.690 | 0.881 | 0.372 | 0.427 | 8900 | 10216 | 2439 | 462 | 909 |
| 20 | 40 | 0.968 | 1.085 | 0.908 | 1.083 | 0.487 | 0.544 | 11654 | 13030 | 3592 | 666 | 1308 |
| 18 | 40 | 1.352 | 1.440 | 1.309 | 1.440 | 0.687 | 0.753 | 16456 | 18039 | 5663 | 1128 | 2208 |
| 16 | 40 | 1.768 | 1.814 | 1.745 | 1.814 | 0.890 | 0.951 | 21312 | 22767 | 7115 | 1740 | 3400 |

- 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 | 93 / 97 | 59 / 50 | 49 / 37 | 41 / 29 | 35 / 23 | 30 / 18 | - | - | - | - | 13 - 10 |
| | 20 | 121 / 124 | 78 / 63 | 64 / 48 | 54 / 37 | 46 / 29 | 40 / 23 | 35 / 19 | 30 / 15 | 24 / 11 | - | 17 - 6 |
| | 18 | 171 / 173 | 110 / 89 | 91 / 67 | 76 / 51 | 65 / 40 | 56 / 32 | 49 / 26 | 43 / 22 | 34 / 15 | 27 / 11 | 23 - 0 |
| | 16 | 222 / 226 | 142 / 116 | 117 / 87 | 99 / 67 | 84 / 53 | 72 / 42 | 63 / 34 | 55 / 28 | 44 / 20 | 36 / 14 | 27 - 7 |
| Double | 22 | 91 / 274 | 67 / 140 | 56 / 105 | 47 / 81 | 40 / 64 | 34 / 51 | 30 / 42 | 26 / 34 | - | - | 16 - 10 |
| | 20 | 131 / 335 | 86 / 172 | 71 / 129 | 60 / 99 | 51 / 78 | 44 / 63 | 38 / 51 | 34 / 42 | 27 / 29 | - | 21 - 3 |
| | 18 | 185 / 445 | 119 / 228 | 99 / 171 | 83 / 132 | 71 / 104 | 61 / 83 | 53 / 67 | 47 / 56 | 37 / 39 | 30 / 28 | 27 - 9 |
| | 16 | 234 / 560 | 150 / 287 | 125 / 215 | 105 / 166 | 89 / 131 | 77 / 105 | 67 / 85 | 59 / 70 | 47 / 49 | 38 / 36 | 33 - 0 |
| Triple | 22 | 103 / 214 | 83 / 110 | 69 / 82 | 58 / 63 | 50 / 50 | 43 / 40 | 37 / 32 | - | - | - | 17 - 1 |
| | 20 | 149 / 262 | 107 / 134 | 89 / 101 | 75 / 78 | 64 / 61 | 55 / 49 | 48 / 40 | - | - | - | 21 - 6 |
| | 18 | 230 / 348 | 148 / 178 | 123 / 134 | 103 / 103 | 88 / 81 | 76 / 65 | 66 / 53 | - | - | - | 28 - 1 |
| | 16 | 291 / 438 | 187 / 224 | 155 / 169 | 131 / 130 | 111 / 102 | 96 / 82 | 84 / 67 | - | - | - | 33 - 5 |

- 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 | 3 - 9 | 3 - 9 | 3 - 9 |
| 20 | 40 | 4 - 8 | 4 - 8 | 4 - 4 |
| 18 | 40 | 5 - 10 | 5 - 11 | 4 - 4 |
| 16 | 40 | 6 - 2 | 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.