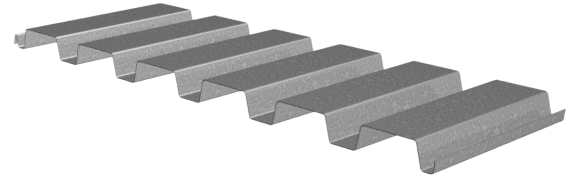


PLB™-36/HSB®-36 ROOF DECKS GRADE 50 STEEL

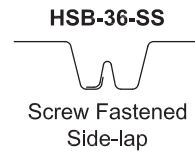
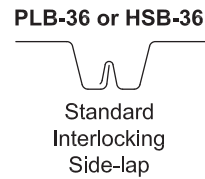
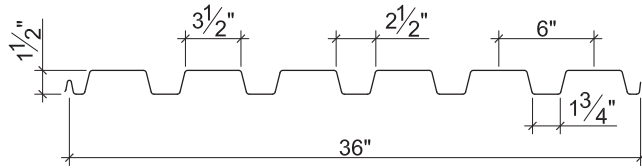
ASD

B ROOF DECKS

- PLB-36 Deck used with PunchLok® II System
- HSB-36 Deck used with TSWs or BPs
- HSB-36-SS Deck used with Side-lap Screws



Nominal Dimensions



Section Properties

| Deck Gage | Deck Weight w_{dd} (psf) | Base Metal Thickness t (in.) | Yield Strength F_y (ksi) | Effective Moment of Inertia at Service Load $I_d = (2I_e + I_g)/3$ | | Effective Section Modulus at $F_y = 50$ ksi | | Vertical Web Shear V_n/Ω (lb/ft) |
|-----------|----------------------------------|--------------------------------------|----------------------------------|---|-----------------------------------|---|-----------------------------------|---|
| | | | | I_{d+} (in ⁴ /ft) | I_{d-} (in ⁴ /ft) | S_{e+} (in ³ /ft) | S_{e-} (in ³ /ft) | |
| 22 | 1.9 | 0.0299 | 50 | 0.178 | 0.192 | 0.176 | 0.188 | 2688 |
| 20 | 2.3 | 0.0359 | 50 | 0.219 | 0.231 | 0.230 | 0.237 | 3220 |
| 18 | 2.9 | 0.0478 | 50 | 0.302 | 0.306 | 0.314 | 0.331 | 4264 |
| 16 | 3.5 | 0.0598 | 50 | 0.381 | 0.381 | 0.399 | 0.410 | 5302 |

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

| Deck Gage | Bearing Length of Webs | | | | | | | | | | | |
|-----------|------------------------|------|------|------|------------------|------|--------------------|------|------|------|------------------|------|
| | One-Flange Loading | | | | | | Two-Flange Loading | | | | | |
| | End Bearing | | | | Interior Bearing | | End Bearing | | | | Interior Bearing | |
| | 1 1/2" | 2" | 3" | 4" | 3" | 4" | 1 1/2" | 2" | 3" | 4" | 3" | 4" |
| 22 | 850 | 934 | 1075 | 1163 | 1558 | 1670 | 893 | 962 | 1077 | 1149 | 1933 | 2082 |
| 20 | 1188 | 1301 | 1492 | 1609 | 2189 | 2339 | 1316 | 1413 | 1575 | 1675 | 2743 | 2946 |
| 18 | 2001 | 2182 | 2485 | 2667 | 3714 | 3949 | 2388 | 2550 | 2822 | 2986 | 4713 | 5038 |
| 16 | 3006 | 3264 | 3698 | 3954 | 5604 | 5935 | 3775 | 4015 | 4419 | 4657 | 7164 | 7627 |

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
 - Short cuts < 6'-0"
 - Sheet Lengths > 40'-0"
 - Alternative metallic and painted finishes
- Web and Fully Perforated Acoustical Versions
- HSB-30-NS Deck used with Side-lap screws

PLB™-36/HSB®-36 ROOF DECKS GRADE 50 STEEL

ASD

Inward Uniform Allowable Loads, ASD (psf)

| Deck Gage | Spans | Criteria | Span (ft-in.) | | | | | | | | | | |
|-----------|--------|----------------|---------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| | | | 2'-0" | 3'-0" | 4'-0" | 5'-0" | 6'-0" | 7'-0" | 8'-0" | 9'-0" | 10'-0" | 11'-0" | 12'-0" |
| 22 | Single | W_n / Ω | 878 | 390 | 219 | 140 | 98 | 72 | 55 | 43 | 35 | 29 | 24 |
| | | L/240 | --- | --- | 182 | 93 | 54 | 34 | 23 | 16 | 12 | 9 | 7 |
| | Double | W_n / Ω | 860 | 400 | 229 | 148 | 103 | 76 | 58 | 46 | 37 | 31 | 26 |
| | | L/240 | --- | --- | --- | --- | --- | --- | --- | 42 | 30 | 23 | 18 |
| | Triple | W_n / Ω | 1039 | 492 | 283 | 184 | 128 | 95 | 73 | 57 | 47 | 39 | 32 |
| | | L/240 | --- | --- | --- | 176 | 102 | 64 | 43 | 30 | 22 | 17 | 13 |
| 20 | Single | W_n / Ω | 1147 | 510 | 287 | 184 | 127 | 94 | 72 | 57 | 46 | 38 | 32 |
| | | L/240 | --- | --- | 224 | 115 | 66 | 42 | 28 | 20 | 14 | 11 | 8 |
| | Double | W_n / Ω | 1075 | 503 | 288 | 186 | 130 | 96 | 73 | 58 | 47 | 39 | 33 |
| | | L/240 | --- | --- | --- | --- | --- | --- | 71 | 50 | 36 | 27 | 21 |
| | Triple | W_n / Ω | 1295 | 617 | 356 | 231 | 162 | 119 | 92 | 72 | 59 | 49 | 41 |
| | | L/240 | --- | --- | --- | 217 | 125 | 79 | 53 | 37 | 27 | 20 | 16 |
| 18 | Single | W_n / Ω | 1566 | 696 | 392 | 251 | 174 | 128 | 98 | 77 | 63 | 52 | 44 |
| | | L/240 | --- | --- | 309 | 158 | 92 | 58 | 39 | 27 | 20 | 15 | 11 |
| | Double | W_n / Ω | 1486 | 699 | 401 | 259 | 181 | 134 | 102 | 81 | 66 | 54 | 46 |
| | | L/240 | --- | --- | --- | --- | --- | --- | 94 | 66 | 48 | 36 | 28 |
| | Triple | W_n / Ω | 1785 | 856 | 496 | 322 | 225 | 166 | 128 | 101 | 82 | 68 | 57 |
| | | L/240 | --- | --- | --- | 299 | 173 | 109 | 73 | 51 | 37 | 28 | 22 |
| 16 | Single | W_n / Ω | 1992 | 885 | 498 | 319 | 221 | 163 | 124 | 98 | 80 | 66 | 55 |
| | | L/240 | --- | --- | 390 | 200 | 116 | 73 | 49 | 34 | 25 | 19 | 14 |
| | Double | W_n / Ω | 1842 | 865 | 497 | 321 | 224 | 165 | 127 | 100 | 81 | 67 | 57 |
| | | L/240 | --- | --- | --- | --- | --- | --- | 118 | 83 | 60 | 45 | 35 |
| | Triple | W_n / Ω | 2213 | 1060 | 614 | 399 | 279 | 206 | 158 | 125 | 102 | 84 | 71 |
| | | L/240 | --- | --- | --- | 377 | 218 | 137 | 92 | 65 | 47 | 35 | 27 |

Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

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