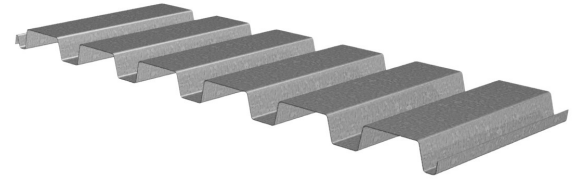


PLB™-36/HSB®-36 ROOF DECKS GRADE 50 STEEL

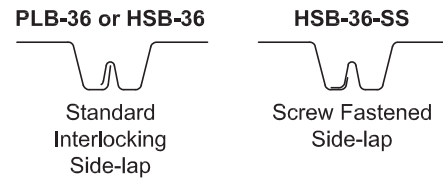
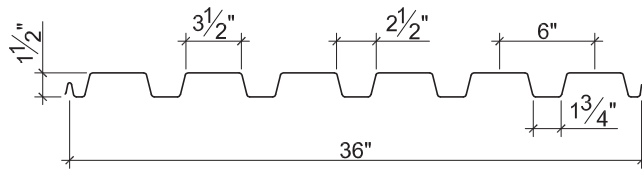
ASD

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 |
| | | $L/240$ | --- | --- | --- | --- | 110 | 69 | 46 | 33 | 24 | 18 | 14 |
| 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 |
| | | $L/240$ | --- | --- | --- | 229 | 132 | 83 | 56 | 39 | 29 | 21 | 17 |
| 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 |
| | | $L/240$ | --- | --- | --- | 303 | 175 | 110 | 74 | 52 | 38 | 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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