

| Table 1B Section Properties of Standard Dressed (S4S) Sawn Lumber | | | | | | | | | | | | |
|---|---|--|--|--|--|--|---|-------------------------|-------|-------|-------|-------|
| Nominal Size b x d | Standard Dressed Size (S4S) b x d inches x inches | Area of Section A in. ² | X-X Axis | | Y-Y Axis | | Approximate weight in pounds per linear foot (lb./ft.) of piece when density of wood equals: | | | | | |
| | | | Section Modulus S _{xx} in. ³ | Moment of Inertia I _{xx} in. ⁴ | Section Modulus S _{yy} in. ³ | Moment of inertia I _{yy} in. ⁴ | | | | | | |
| | | | 25 lb./ft. ³ | 30 lb./ft. ³ | 35 lb./ft. ³ | 40 lb./ft. ³ | 45 lb./ft. ³ | 50 lb./ft. ³ | | | | |
| 1 x 3 | 3/4 x 2-1/2 | 1.875 | 0.781 | 0.977 | 0.234 | 0.088 | 0.326 | 0.391 | 0.456 | 0.521 | 0.586 | 0.651 |
| 1 x 4 | 3/4 x 3-1/2 | 2.625 | 1.531 | 2.680 | 0.328 | 0.123 | 0.456 | 0.547 | 0.638 | 0.729 | 0.820 | 0.911 |
| 1 x 6 | 3/4 x 5-1/2 | 4.125 | 3.781 | 10.40 | 0.516 | 0.193 | 0.716 | 0.859 | 1.003 | 1.146 | 1.289 | 1.432 |
| 1 x 8 | 3/4 x 7-1/4 | 5.438 | 6.570 | 23.82 | 0.680 | 0.255 | 0.944 | 1.133 | 1.322 | 1.510 | 1.699 | 1.888 |
| 1 x 10 | 3/4 x 9-1/4 | 6.938 | 10.70 | 49.47 | 0.867 | 0.325 | 1.204 | 1.445 | 1.686 | 1.927 | 2.168 | 2.409 |
| 1 x 12 | 3/4 x 11-1/4 | 8.438 | 15.82 | 88.99 | 1.055 | 0.396 | 1.465 | 1.758 | 2.051 | 2.344 | 2.637 | 2.930 |
| 2 x 3 | 1-1/2 x 2-1/2 | 3.750 | 1.563 | 1.953 | 0.938 | 0.703 | 0.651 | 0.781 | 0.911 | 1.042 | 1.172 | 1.302 |
| 2 x 4 | 1-1/2 x 3-1/2 | 5.250 | 3.063 | 5.359 | 1.313 | 0.984 | 0.911 | 1.094 | 1.276 | 1.458 | 1.641 | 1.823 |
| 2 x 5 | 1-1/2 x 4-1/2 | 6.750 | 5.063 | 11.39 | 1.688 | 1.266 | 1.172 | 1.406 | 1.641 | 1.875 | 2.109 | 2.344 |
| 2 x 6 | 1-1/2 x 5-1/2 | 8.250 | 7.563 | 20.80 | 2.063 | 1.547 | 1.432 | 1.719 | 2.005 | 2.292 | 2.578 | 2.865 |
| 2 x 8 | 1-1/2 x 7-1/4 | 10.88 | 13.14 | 47.63 | 2.719 | 2.039 | 1.888 | 2.266 | 2.643 | 3.021 | 3.398 | 3.776 |
| 2 x 10 | 1-1/2 x 9-1/4 | 13.88 | 21.39 | 98.93 | 3.469 | 2.602 | 2.409 | 2.891 | 3.372 | 3.854 | 4.336 | 4.818 |
| 2 x 12 | 1-1/2 x 11-1/4 | 16.88 | 31.64 | 178.0 | 4.219 | 3.164 | 2.930 | 3.516 | 4.102 | 4.688 | 5.273 | 5.859 |
| 2 x 14 | 1-1/2 x 13-1/4 | 19.88 | 43.89 | 290.8 | 4.969 | 3.727 | 3.451 | 4.141 | 4.831 | 5.521 | 6.211 | 6.901 |
| 3 x 4 | 2-1/2 x 3-1/2 | 8.750 | 5.104 | 8.932 | 3.646 | 4.557 | 1.519 | 1.823 | 2.127 | 2.431 | 2.734 | 3.038 |
| 3 x 5 | 2-1/2 x 4-1/2 | 11.25 | 8.438 | 18.98 | 4.688 | 5.859 | 1.953 | 2.344 | 2.734 | 3.125 | 3.516 | 3.906 |
| 3 x 6 | 2-1/2 x 5-1/2 | 13.75 | 12.60 | 34.66 | 5.729 | 7.161 | 2.387 | 2.865 | 3.342 | 3.819 | 4.297 | 4.774 |
| 3 x 8 | 2-1/2 x 7-1/4 | 18.13 | 21.90 | 79.39 | 7.552 | 9.440 | 3.147 | 3.776 | 4.405 | 5.035 | 5.664 | 6.293 |
| 3 x 10 | 2-1/2 x 9-1/4 | 23.13 | 35.65 | 164.9 | 9.635 | 12.04 | 4.015 | 4.818 | 5.621 | 6.424 | 7.227 | 8.030 |
| 3 x 12 | 2-1/2 x 11-1/4 | 28.13 | 52.73 | 296.6 | 11.72 | 14.65 | 4.883 | 5.859 | 6.836 | 7.813 | 8.789 | 9.766 |
| 3 x 14 | 2-1/2 x 13-1/4 | 33.13 | 73.15 | 484.6 | 13.80 | 17.25 | 5.751 | 6.901 | 8.051 | 9.201 | 10.35 | 11.50 |
| 3 x 16 | 2-1/2 x 15-1/4 | 38.13 | 96.90 | 738.9 | 15.89 | 19.86 | 6.619 | 7.943 | 9.266 | 10.59 | 11.91 | 13.24 |
| 4 x 4 | 3-1/2 x 3-1/2 | 12.25 | 7.146 | 12.51 | 7.146 | 12.51 | 2.127 | 2.552 | 2.977 | 3.403 | 3.828 | 4.253 |
| 4 x 5 | 3-1/2 x 4-1/2 | 15.75 | 11.81 | 26.58 | 9.188 | 16.08 | 2.734 | 3.281 | 3.828 | 4.375 | 4.922 | 5.469 |
| 4 x 6 | 3-1/2 x 5-1/2 | 19.25 | 17.65 | 48.53 | 11.23 | 19.65 | 3.342 | 4.010 | 4.679 | 5.347 | 6.016 | 6.684 |
| 4 x 8 | 3-1/2 x 7-1/4 | 25.38 | 30.66 | 111.1 | 14.80 | 25.90 | 4.405 | 5.286 | 6.168 | 7.049 | 7.930 | 8.811 |
| 4 x 10 | 3-1/2 x 9-1/4 | 32.38 | 49.91 | 230.8 | 18.89 | 33.05 | 5.621 | 6.745 | 7.869 | 8.993 | 10.12 | 11.24 |
| 4 x 12 | 3-1/2 x 11-1/4 | 39.38 | 73.83 | 415.3 | 22.97 | 40.20 | 6.836 | 8.203 | 9.570 | 10.94 | 12.30 | 13.67 |
| 4 x 14 | 3-1/2 x 13-1/4 | 46.38 | 102.4 | 678.5 | 27.05 | 47.34 | 8.051 | 9.661 | 11.27 | 12.88 | 14.49 | 16.10 |
| 4 x 16 | 3-1/2 x 15-1/4 | 53.38 | 135.7 | 1034 | 31.14 | 54.49 | 9.266 | 11.12 | 12.97 | 14.83 | 16.68 | 18.53 |
| 5 x 5 | 4-1/2 x 4-1/2 | 20.25 | 15.19 | 34.17 | 15.19 | 34.17 | 3.516 | 4.219 | 4.922 | 5.625 | 6.328 | 7.031 |
| 6 x 6 | 5-1/2 x 5-1/2 | 30.25 | 27.73 | 76.26 | 27.73 | 76.26 | 5.252 | 6.302 | 7.352 | 8.403 | 9.453 | 10.50 |
| 6 x 8 | 5-1/2 x 7-1/2 | 41.25 | 51.56 | 193.4 | 37.81 | 104.0 | 7.161 | 8.594 | 10.03 | 11.46 | 12.89 | 14.32 |
| 6 x 10 | 5-1/2 x 9-1/2 | 52.25 | 82.73 | 393.0 | 47.90 | 131.7 | 9.071 | 10.89 | 12.70 | 14.51 | 16.33 | 18.14 |
| 6 x 12 | 5-1/2 x 11-1/2 | 63.25 | 121.2 | 697.1 | 57.98 | 159.4 | 10.98 | 13.18 | 15.37 | 17.57 | 19.77 | 21.96 |
| 6 x 14 | 5-1/2 x 13-1/2 | 74.25 | 167.1 | 1128 | 68.06 | 187.2 | 12.89 | 15.47 | 18.05 | 20.63 | 23.20 | 25.78 |
| 6 x 16 | 5-1/2 x 15-1/2 | 85.25 | 220.2 | 1707 | 78.15 | 214.9 | 14.80 | 17.76 | 20.72 | 23.68 | 26.64 | 29.60 |
| 6 x 18 | 5-1/2 x 17-1/2 | 96.25 | 280.7 | 2456 | 88.23 | 242.6 | 16.71 | 20.05 | 23.39 | 26.74 | 30.08 | 33.42 |
| 6 x 20 | 5-1/2 x 19-1/2 | 107.3 | 348.6 | 3398 | 98.31 | 270.4 | 18.62 | 22.34 | 26.07 | 29.79 | 33.52 | 37.24 |
| 6 x 22 | 5-1/2 x 21-1/2 | 118.3 | 423.7 | 4555 | 108.4 | 298.1 | 20.53 | 24.64 | 28.74 | 32.85 | 36.95 | 41.06 |
| 6 x 24 | 5-1/2 x 23-1/2 | 129.3 | 506.2 | 5948 | 118.5 | 325.8 | 22.44 | 26.93 | 31.41 | 35.90 | 40.39 | 44.88 |
| 8 x 8 | 7-1/2 x 7-1/2 | 56.25 | 70.31 | 263.7 | 70.31 | 263.7 | 9.766 | 11.72 | 13.67 | 15.63 | 17.58 | 19.53 |
| 8 x 10 | 7-1/2 x 9-1/2 | 71.25 | 112.8 | 535.9 | 89.06 | 334.0 | 12.37 | 14.84 | 17.32 | 19.79 | 22.27 | 24.74 |
| 8 x 12 | 7-1/2 x 11-1/2 | 86.25 | 165.3 | 950.5 | 107.8 | 404.3 | 14.97 | 17.97 | 20.96 | 23.96 | 26.95 | 29.95 |
| 8 x 14 | 7-1/2 x 13-1/2 | 101.3 | 227.8 | 1538 | 126.6 | 474.6 | 17.58 | 21.09 | 24.61 | 28.13 | 31.64 | 35.16 |
| 8 x 16 | 7-1/2 x 15-1/2 | 116.3 | 300.3 | 2327 | 145.3 | 544.9 | 20.18 | 24.22 | 28.26 | 32.29 | 36.33 | 40.36 |
| 8 x 18 | 7-1/2 x 17-1/2 | 131.3 | 382.8 | 3350 | 164.1 | 615.2 | 22.79 | 27.34 | 31.90 | 36.46 | 41.02 | 45.57 |
| 8 x 20 | 7-1/2 x 19-1/2 | 146.3 | 475.3 | 4634 | 182.8 | 685.5 | 25.39 | 30.47 | 35.55 | 40.63 | 45.70 | 50.78 |
| 8 x 22 | 7-1/2 x 21-1/2 | 161.3 | 577.8 | 6211 | 201.6 | 755.9 | 27.99 | 33.59 | 39.19 | 44.79 | 50.39 | 55.99 |
| 8 x 24 | 7-1/2 x 23-1/2 | 176.3 | 690.3 | 8111 | 220.3 | 826.2 | 30.60 | 36.72 | 42.84 | 48.96 | 55.08 | 61.20 |
| 10 x 10 | 9-1/2 x 9-1/2 | 90.25 | 142.9 | 678.8 | 142.9 | 678.8 | 15.67 | 18.80 | 21.94 | 25.07 | 28.20 | 31.34 |
| 10 x 12 | 9-1/2 x 11-1/2 | 109.3 | 209.4 | 1204 | 173.0 | 821.7 | 18.97 | 22.76 | 26.55 | 30.35 | 34.14 | 37.93 |
| 10 x 14 | 9-1/2 x 13-1/2 | 128.3 | 288.6 | 1948 | 203.1 | 964.5 | 22.27 | 26.72 | 31.17 | 35.63 | 40.08 | 44.53 |
| 10 x 16 | 9-1/2 x 15-1/2 | 147.3 | 380.4 | 2948 | 233.1 | 1107 | 25.56 | 30.68 | 35.79 | 40.90 | 46.02 | 51.13 |
| 10 x 18 | 9-1/2 x 17-1/2 | 166.3 | 484.9 | 4243 | 263.2 | 1250 | 28.86 | 34.64 | 40.41 | 46.18 | 51.95 | 57.73 |
| 10 x 20 | 9-1/2 x 19-1/2 | 185.3 | 602.1 | 5870 | 293.3 | 1393 | 32.16 | 38.59 | 45.03 | 51.46 | 57.89 | 64.32 |
| 10 x 22 | 9-1/2 x 21-1/2 | 204.3 | 731.9 | 7868 | 323.4 | 1536 | 35.46 | 42.55 | 49.64 | 56.74 | 63.83 | 70.92 |
| 10 x 24 | 9-1/2 x 23-1/2 | 223.3 | 874.4 | 10270 | 353.5 | 1679 | 38.76 | 46.51 | 54.26 | 62.01 | 69.77 | 77.52 |