

## N815 - Half-Flange Tip Option

Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |      |        |            |        |        |        |
|-----------|------|---------------|-------|------|--------|------------|--------|--------|--------|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour | 4-Hour |
| W44 x 335 | 2.52 | W1120 x 498   | 148.7 | 53.2 | 3/4    | 3/8        | 7/16   | 3/4    | 1-1/16 |
| 290       | 2.2  | 432           | 129.8 | 60.9 | 5/16   | 7/16       | 1/2    | 13/16  | 1-3/16 |
| 262       | 2    | 390           | 118.0 | 67.0 | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4  |
| 230       | 1.77 | 342           | 104.4 | 75.7 | 5/16   | 1/2        | 9/16   | 15/16  | 1-3/8  |
| W40 x 593 | 4.56 | W1000 x 883   | 269.0 | 29.4 | 5/16   | 3/8        | 3/8    | 7/16   | 5/8    |
| 503       | 3.93 | 748           | 231.9 | 34.1 | 5/16   | 3/8        | 3/8    | 1/2    | 3/4    |
| 431       | 3.42 | 641           | 201.8 | 39.2 | 5/16   | 3/8        | 3/8    | 9/16   | 13/16  |
| 397       | 3.15 | 591           | 185.9 | 42.5 | 5/16   | 3/8        | 3/8    | 5/8    | 7/8    |
| 392       | 3.38 | 583           | 199.4 | 39.6 | 5/16   | 3/8        | 3/8    | 9/16   | 13/16  |
| 372       | 2.98 | 554           | 175.8 | 45.0 | 5/16   | 3/8        | 3/8    | 5/8    | 15/16  |
| 362       | 2.9  | 539           | 171.1 | 46.2 | 5/16   | 3/8        | 7/16   | 11/16  | 15/16  |
| 331       | 2.9  | 493           | 171.1 | 46.2 | 5/16   | 3/8        | 7/16   | 11/16  | 15/16  |
| 327       | 2.89 | 487           | 170.5 | 46.4 | 5/16   | 3/8        | 7/16   | 11/16  | 15/16  |
| 324       | 2.61 | 482           | 154.0 | 51.3 | 5/16   | 3/8        | 7/16   | 11/16  | 1      |
| 297       | 2.41 | 442           | 142.2 | 55.6 | 5/16   | 3/8        | 1/2    | 3/4    | 1-1/16 |
| 278       | 2.48 | 414           | 146.3 | 54.0 | 5/16   | 3/8        | 7/16   | 3/4    | 1-1/16 |
| 277       | 2.25 | 412           | 132.8 | 59.5 | 5/16   | 3/8        | 1/2    | 13/16  | 1-1/8  |
| 264       | 2.36 | 393           | 139.2 | 56.8 | 5/16   | 3/8        | 1/2    | 3/4    | 1-1/8  |
| 249       | 2.02 | 371           | 119.2 | 66.3 | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4  |
| 235       | 2.1  | 350           | 123.9 | 63.8 | 5/16   | 7/16       | 1/2    | 7/8    | 1-3/16 |
| 215       | 1.76 | 321           | 103.8 | 76.1 | 5/16   | 1/2        | 9/16   | 15/16  | 1-3/8  |
| 211       | 1.9  | 314           | 112.1 | 70.5 | 5/16   | 7/16       | 9/16   | 15/16  | 1-5/16 |
| 199       | 1.64 | 296           | 96.8  | 81.7 | 3/8    | 1/2        | 5/8    | 1      | 1-7/16 |
| 183       | 1.66 | 272           | 97.9  | 80.7 | 5/16   | 1/2        | 5/8    | 1      | 1-7/16 |
| 167       | 1.53 | 249           | 90.3  | 87.6 | 3/8    | 1/2        | 5/8    | 1-1/16 | 1-1/2  |
| 149       | 1.37 | 222           | 80.8  | 97.8 | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-5/8  |
| W36 x 798 | 6.09 | W920 x 1188   | 359.3 | 22.0 | 5/16   | 3/8        | 3/8    | 3/8    | 1/2    |
| 650       | 5.08 | 967           | 299.7 | 26.4 | 5/16   | 3/8        | 3/8    | 7/16   | 9/16   |
| 527       | 4.22 | 784           | 249.0 | 31.7 | 5/16   | 3/8        | 3/8    | 1/2    | 11/16  |
| 439       | 3.57 | 653           | 210.6 | 37.5 | 5/16   | 3/8        | 3/8    | 9/16   | 13/16  |
| 393       | 3.25 | 585           | 191.8 | 41.2 | 5/16   | 3/8        | 3/8    | 5/8    | 7/8    |
| 359       | 2.97 | 534           | 175.2 | 45.1 | 5/16   | 3/8        | 3/8    | 5/8    | 15/16  |
| 328       | 2.73 | 488           | 161.1 | 49.1 | 5/16   | 3/8        | 7/16   | 11/16  | 1      |
| 300       | 2.5  | 446           | 147.5 | 53.6 | 5/16   | 3/8        | 7/16   | 3/4    | 1-1/16 |
| 280       | 2.35 | 417           | 138.7 | 57.0 | 5/16   | 3/8        | 1/2    | 3/4    | 1-1/8  |
| 260       | 2.18 | 387           | 128.6 | 61.5 | 5/16   | 7/16       | 1/2    | 13/16  | 1-3/16 |
| 256       | 2.37 | 381           | 139.8 | 56.5 | 5/16   | 3/8        | 1/2    | 3/4    | 1-1/8  |
| 245       | 2.08 | 365           | 122.7 | 64.4 | 5/16   | 7/16       | 1/2    | 7/8    | 1-3/16 |
| 232       | 2.15 | 345           | 126.9 | 62.3 | 5/16   | 7/16       | 1/2    | 13/16  | 1-3/16 |
| 230       | 1.95 | 342           | 115.1 | 68.7 | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4  |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

*Restrained Beam*

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |       |        |            |        |        |         |
|-----------|------|---------------|-------|-------|--------|------------|--------|--------|---------|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A  | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour | 4-Hour  |
| W36 x 210 | 1.96 | W920 x 313    | 115.6 | 68.4  | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4   |
| 194       | 1.81 | 289           | 106.8 | 74.0  | 5/16   | 1/2        | 9/16   | 15/16  | 1-3/8   |
| 182       | 1.72 | 271           | 101.5 | 77.9  | 5/16   | 1/2        | 5/8    | 1      | 1-3/8   |
| 170       | 1.6  | 253           | 94.4  | 83.7  | 3/8    | 1/2        | 5/8    | 1-1/16 | 1-1/2   |
| 160       | 1.51 | 238           | 89.1  | 88.7  | 3/8    | 9/16       | 11/16  | 1-1/16 | 1-9/16  |
| 150       | 1.43 | 223           | 84.4  | 93.7  | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-5/8   |
| 135       | 1.29 | 201           | 76.1  | 103.9 | 3/8    | 9/16       | 3/4    | 1-3/16 | 1-11/16 |
| W33 x 387 | 3.31 | W840 x 576    | 195.3 | 40.5  | 5/16   | 3/8        | 3/8    | 5/8    | 13/16   |
| 354       | 3.05 | 527           | 180.0 | 43.9  | 5/16   | 3/8        | 3/8    | 5/8    | 7/8     |
| 318       | 2.77 | 473           | 163.4 | 48.4  | 5/16   | 3/8        | 7/16   | 11/16  | 1       |
| 291       | 2.55 | 433           | 150.5 | 52.5  | 5/16   | 3/8        | 7/16   | 3/4    | 1-1/16  |
| 263       | 2.33 | 392           | 137.5 | 57.5  | 5/16   | 3/8        | 1/2    | 13/16  | 1-1/8   |
| 241       | 2.13 | 359           | 125.7 | 62.9  | 5/16   | 7/16       | 1/2    | 13/16  | 1-3/16  |
| 221       | 1.97 | 329           | 116.2 | 68.0  | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4   |
| 201       | 1.79 | 299           | 105.6 | 74.9  | 5/16   | 1/2        | 9/16   | 15/16  | 1-3/8   |
| 169       | 1.7  | 251           | 100.3 | 78.8  | 5/16   | 1/2        | 5/8    | 1      | 1-7/16  |
| 152       | 1.53 | 226           | 90.3  | 87.6  | 3/8    | 1/2        | 5/8    | 1-1/16 | 1-1/2   |
| 141       | 1.43 | 210           | 84.4  | 93.7  | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-5/8   |
| 130       | 1.32 | 193           | 77.9  | 101.5 | 3/8    | 9/16       | 3/4    | 1-3/16 | 1-11/16 |
| 118       | 1.21 | 176           | 71.4  | 110.7 | 7/16   | 5/8        | 3/4    | 1-1/4  | 1-13/16 |
| W30 x 391 | 3.59 | W760 x 582    | 211.8 | 37.3  | 5/16   | 3/8        | 3/8    | 9/16   | 13/16   |
| 357       | 3.31 | 531           | 195.3 | 40.5  | 5/16   | 3/8        | 3/8    | 5/8    | 13/16   |
| 326       | 3.05 | 484           | 180.0 | 43.9  | 5/16   | 3/8        | 3/8    | 5/8    | 7/8     |
| 292       | 2.73 | 434           | 161.1 | 49.1  | 5/16   | 3/8        | 7/16   | 11/16  | 1       |
| 261       | 2.46 | 389           | 145.1 | 54.5  | 5/16   | 3/8        | 7/16   | 3/4    | 1-1/16  |
| 235       | 2.24 | 350           | 132.2 | 59.8  | 5/16   | 3/8        | 1/2    | 13/16  | 1-1/8   |
| 211       | 2.01 | 314           | 118.6 | 66.7  | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4   |
| 191       | 1.85 | 284           | 109.2 | 72.4  | 5/16   | 7/16       | 9/16   | 15/16  | 1-5/16  |
| 173       | 1.66 | 257           | 97.9  | 80.7  | 5/16   | 1/2        | 5/8    | 1      | 1-7/16  |
| 148       | 1.64 | 220           | 96.8  | 81.7  | 3/8    | 1/2        | 5/8    | 1      | 1-7/16  |
| 132       | 1.47 | 196           | 86.7  | 91.1  | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-9/16  |
| 124       | 1.39 | 185           | 82.0  | 96.4  | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-5/8   |
| 116       | 1.3  | 173           | 76.7  | 103.1 | 3/8    | 9/16       | 3/4    | 1-3/16 | 1-11/16 |
| 108       | 1.21 | 161           | 71.4  | 110.7 | 7/16   | 5/8        | 3/4    | 1-1/4  | 1-13/16 |
| 99        | 1.12 | 147           | 66.1  | 119.6 | 7/16   | 5/8        | 13/16  | 1-5/16 | 1-7/8   |
| 90        | 1.02 | 134           | 60.2  | 131.4 | 7/16   | 11/16      | 7/8    | 1-3/8  | 2       |
| W27 x 539 | 5.08 | W690 x 802    | 299.7 | 26.4  | 5/16   | 3/8        | 3/8    | 7/16   | 9/16    |
| 368       | 3.64 | 548           | 214.8 | 36.8  | 5/16   | 3/8        | 3/8    | 9/16   | 3/4     |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM<br>Desig. | W/D  | Metric Desig. | M/D   | Hp/A  | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour | 4-Hour  |
|----------------|------|---------------|-------|-------|--------|------------|--------|--------|---------|
| W27 x 336      | 3.36 | W690 x 500    | 198.2 | 39.9  | 5/16   | 3/8        | 3/8    | 9/16   | 13/16   |
| 307            | 3.11 | 457           | 183.5 | 43.1  | 5/16   | 3/8        | 3/8    | 5/8    | 7/8     |
| 281            | 2.86 | 418           | 168.7 | 46.8  | 5/16   | 3/8        | 7/16   | 11/16  | 15/16   |
| 258            | 2.64 | 384           | 155.8 | 50.8  | 5/16   | 3/8        | 7/16   | 11/16  | 1       |
| 235            | 2.43 | 350           | 143.4 | 55.1  | 5/16   | 3/8        | 7/16   | 3/4    | 1-1/16  |
| 217            | 2.26 | 323           | 133.3 | 59.3  | 5/16   | 3/8        | 1/2    | 13/16  | 1-1/8   |
| 194            | 2.03 | 289           | 119.8 | 66.0  | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4   |
| 178            | 1.87 | 265           | 110.3 | 71.6  | 5/16   | 7/16       | 9/16   | 15/16  | 1-5/16  |
| 161            | 1.7  | 240           | 100.3 | 78.8  | 5/16   | 1/2        | 5/8    | 1      | 1-7/16  |
| 146            | 1.55 | 217           | 91.5  | 86.4  | 3/8    | 1/2        | 5/8    | 1-1/16 | 1-1/2   |
| 129            | 1.56 | 192           | 92.0  | 85.9  | 3/8    | 1/2        | 5/8    | 1-1/16 | 1-1/2   |
| 114            | 1.39 | 170           | 82.0  | 96.4  | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-5/8   |
| 102            | 1.24 | 152           | 73.2  | 108.1 | 7/16   | 5/8        | 3/4    | 1-1/4  | 1-3/4   |
| 94             | 1.15 | 140           | 67.9  | 116.5 | 7/16   | 5/8        | 13/16  | 1-5/16 | 1-7/8   |
| 84             | 1.03 | 125           | 60.8  | 130.1 | 7/16   | 11/16      | 13/16  | 1-3/8  | 2       |
| W24 x 370      | 3.98 | W610 x 551    | 234.8 | 33.7  | 5/16   | 3/8        | 3/8    | 1/2    | 3/4     |
| 335            | 3.66 | 498           | 215.9 | 36.6  | 5/16   | 3/8        | 3/8    | 9/16   | 3/4     |
| 306            | 3.37 | 455           | 198.8 | 39.8  | 5/16   | 3/8        | 3/8    | 9/16   | 13/16   |
| 279            | 3.11 | 415           | 183.5 | 43.1  | 5/16   | 3/8        | 3/8    | 5/8    | 7/8     |
| 250            | 2.81 | 372           | 165.8 | 47.7  | 5/16   | 3/8        | 7/16   | 11/16  | 15/16   |
| 229            | 2.6  | 341           | 153.4 | 51.5  | 5/16   | 3/8        | 7/16   | 3/4    | 1       |
| 207            | 2.36 | 307           | 139.2 | 56.8  | 5/16   | 3/8        | 1/2    | 3/4    | 1-1/8   |
| 192            | 2.2  | 285           | 129.8 | 60.9  | 5/16   | 7/16       | 1/2    | 13/16  | 1-3/16  |
| 176            | 2.03 | 262           | 119.8 | 66.0  | 5/16   | 7/16       | 9/16   | 7/8    | 1-1/4   |
| 162            | 1.88 | 241           | 110.9 | 71.3  | 5/16   | 7/16       | 9/16   | 15/16  | 1-5/16  |
| 146            | 1.7  | 217           | 100.3 | 78.8  | 5/16   | 1/2        | 5/8    | 1      | 1-7/16  |
| 131            | 1.54 | 195           | 90.9  | 87.0  | 3/8    | 1/2        | 5/8    | 1-1/16 | 1-1/2   |
| 117            | 1.38 | 174           | 81.4  | 97.1  | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-5/8   |
| 104            | 1.24 | 155           | 73.2  | 108.1 | 7/16   | 5/8        | 3/4    | 1-1/4  | 1-3/4   |
| 103            | 1.4  | 153           | 82.6  | 95.7  | 3/8    | 9/16       | 11/16  | 1-1/8  | 1-5/8   |
| 94             | 1.28 | 140           | 75.5  | 104.7 | 3/8    | 9/16       | 3/4    | 1-3/16 | 1-11/16 |
| 84             | 1.15 | 125           | 67.9  | 116.5 | 7/16   | 5/8        | 13/16  | 1-5/16 | 1-7/8   |
| 76             | 1.05 | 113           | 62.0  | 127.6 | 7/16   | 11/16      | 13/16  | 1-3/8  | 1-15/16 |
| 68             | 0.94 | 101           | 55.5  | 142.5 | 1/2    | 11/16      | 7/8    | 1-7/16 | 2-1/16  |
| 62             | 0.93 | 92            | 54.9  | 144.1 | 1/2    | 3/4        | 7/8    | 1-1/2  | 2-1/8   |
| 55             | 0.82 | 82            | 48.4  | 163.4 | 1/2    | 3/4        | 15/16  | 1-9/16 | 2-1/4   |
| W21 x 201      | 2.5  | W530 x 300    | 147.5 | 53.6  | 5/16   | 3/8        | 7/16   | 3/4    | 1-1/16  |
| 182            | 2.28 | 272           | 134.5 | 58.8  | 5/16   | 3/8        | 1/2    | 13/16  | 1-1/8   |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

*Restrained Beam*

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |       |        |            |        |         |         |
|-----------|------|---------------|-------|-------|--------|------------|--------|---------|---------|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A  | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour  | 4-Hour  |
| W21 x 166 | 2.09 | W530 x 248    | 123.3 | 64.1  | 5/16   | 7/16       | 1/2    | 7/8     | 1-3/16  |
| 147       | 1.87 | 219           | 110.3 | 71.6  | 5/16   | 7/16       | 9/16   | 15/16   | 1-5/16  |
| 132       | 1.68 | 196           | 99.1  | 79.8  | 5/16   | 1/2        | 5/8    | 1       | 1-7/16  |
| 122       | 1.57 | 182           | 92.6  | 85.3  | 3/8    | 1/2        | 5/8    | 1-1/16  | 1-1/2   |
| 111       | 1.43 | 165           | 84.4  | 93.7  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-5/8   |
| 101       | 1.3  | 150           | 76.7  | 103.1 | 3/8    | 9/16       | 3/4    | 1-3/16  | 1-11/16 |
| 93        | 1.4  | 138           | 82.6  | 95.7  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-5/8   |
| 83        | 1.26 | 123           | 74.3  | 106.3 | 7/16   | 5/8        | 3/4    | 1-3/16  | 1-3/4   |
| 73        | 1.11 | 109           | 65.5  | 120.7 | 7/16   | 5/8        | 13/16  | 1-5/16  | 1-7/8   |
| 68        | 1.04 | 101           | 61.4  | 128.8 | 7/16   | 11/16      | 13/16  | 1-3/8   | 1-15/16 |
| 62        | 0.95 | 92            | 56.1  | 141.0 | 1/2    | 11/16      | 7/8    | 1-7/16  | 2-1/16  |
| 57        | 0.95 | 85            | 56.1  | 141.0 | 1/2    | 11/16      | 7/8    | 1-7/16  | 2-1/16  |
| 55        | 0.85 | 82            | 50.2  | 157.6 | 1/2    | 3/4        | 15/16  | 1-9/16  | 2-1/4   |
| 50        | 0.83 | 74            | 49.0  | 161.4 | 1/2    | 3/4        | 15/16  | 1-9/16  | 2-1/4   |
| 48        | 0.75 | 72            | 44.3  | 178.6 | 9/16   | 13/16      | 1      | 1-11/16 | 2-3/8   |
| 44        | 0.74 | 66            | 43.7  | 181.1 | 9/16   | 13/16      | 1      | 1-11/16 | 2-3/8   |
| W18 x 175 | 2.46 | W460 x 260    | 145.1 | 54.5  | 5/16   | 3/8        | 7/16   | 3/4     | 1-1/16  |
| 158       | 2.24 | 235           | 132.2 | 59.8  | 5/16   | 3/8        | 1/2    | 13/16   | 1-1/8   |
| 143       | 2.05 | 213           | 121.0 | 65.4  | 5/16   | 7/16       | 1/2    | 7/8     | 1-1/4   |
| 130       | 1.88 | 193           | 110.9 | 71.3  | 5/16   | 7/16       | 9/16   | 15/16   | 1-5/16  |
| 119       | 1.72 | 177           | 101.5 | 77.9  | 5/16   | 1/2        | 5/8    | 1       | 1-3/8   |
| 106       | 1.55 | 158           | 91.5  | 86.4  | 3/8    | 1/2        | 5/8    | 1-1/16  | 1-1/2   |
| 97        | 1.42 | 144           | 83.8  | 94.4  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-5/8   |
| 86        | 1.27 | 128           | 74.9  | 105.5 | 7/16   | 5/8        | 3/4    | 1-3/16  | 1-3/4   |
| 76        | 1.13 | 113           | 66.7  | 118.6 | 7/16   | 5/8        | 13/16  | 1-5/16  | 1-7/8   |
| 71        | 1.22 | 106           | 72.0  | 109.8 | 7/16   | 5/8        | 3/4    | 1-1/4   | 1-3/4   |
| 65        | 1.13 | 97            | 66.7  | 118.6 | 7/16   | 5/8        | 13/16  | 1-5/16  | 1-7/8   |
| 60        | 1.04 | 89            | 61.4  | 128.8 | 7/16   | 11/16      | 13/16  | 1-3/8   | 1-15/16 |
| 55        | 0.96 | 82            | 56.6  | 139.6 | 1/2    | 11/16      | 7/8    | 1-7/16  | 2-1/16  |
| 50        | 0.88 | 74            | 51.9  | 152.3 | 1/2    | 3/4        | 15/16  | 1-1/2   | 2-3/16  |
| 46        | 0.87 | 68            | 51.3  | 154.0 | 1/2    | 3/4        | 15/16  | 1-1/2   | 2-3/16  |
| 40        | 0.76 | 60            | 44.8  | 176.3 | 9/16   | 13/16      | 1      | 1-5/8   | 2-3/8   |
| 35        | 0.67 | 52            | 39.5  | 200.0 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| W16 x 100 | 1.59 | W410 x 149    | 93.8  | 84.3  | 3/8    | 1/2        | 5/8    | 1-1/16  | 1-1/2   |
| 89        | 1.43 | 132           | 84.4  | 93.7  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-5/8   |
| 77        | 1.25 | 114           | 73.8  | 107.2 | 7/16   | 5/8        | 3/4    | 1-1/4   | 1-3/4   |
| 67        | 1.09 | 100           | 64.3  | 122.9 | 7/16   | 11/16      | 13/16  | 1-5/16  | 1-15/16 |
| 57        | 1.09 | 85            | 64.3  | 122.9 | 7/16   | 11/16      | 13/16  | 1-5/16  | 1-15/16 |
| 50        | 0.96 | 74            | 56.6  | 139.6 | 1/2    | 11/16      | 7/8    | 1-7/16  | 2-1/16  |
| 45        | 0.87 | 67            | 51.3  | 154.0 | 1/2    | 3/4        | 15/16  | 1-1/2   | 2-3/16  |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |       |        |            |        |         |         |
|-----------|------|---------------|-------|-------|--------|------------|--------|---------|---------|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A  | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour  | 4-Hour  |
| W16 x 40  | 0.78 | W410 x 60     | 46.0  | 171.8 | 9/16   | 13/16      | 1      | 1-5/8   | 2-5/16  |
| 36        | 0.7  | 53            | 41.3  | 191.4 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| 31        | 0.66 | 46            | 38.9  | 203.0 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-9/16  |
| 26        | 0.55 | 39            | 32.5  | 243.6 | 5/8    | 15/16      | 1-3/16 | 1-15/16 | 2-13/16 |
| W14 x 808 | 8.75 | W360 x 1202   | 516.3 | 15.3  | 5/16   | 3/8        | 3/8    | 3/8     | 3/8     |
| 730       | 8.08 | 1086          | 476.7 | 16.6  | 5/16   | 3/8        | 3/8    | 3/8     | 3/8     |
| 665       | 7.49 | 990           | 441.9 | 17.9  | 5/16   | 3/8        | 3/8    | 3/8     | 7/16    |
| 605       | 6.96 | 900           | 410.6 | 19.3  | 5/16   | 3/8        | 3/8    | 3/8     | 7/16    |
| 550       | 6.43 | 818           | 379.4 | 20.8  | 5/16   | 3/8        | 3/8    | 3/8     | 1/2     |
| 500       | 5.95 | 744           | 351.1 | 22.5  | 5/16   | 3/8        | 3/8    | 3/8     | 1/2     |
| 455       | 5.53 | 677           | 326.3 | 24.2  | 5/16   | 3/8        | 3/8    | 3/8     | 9/16    |
| 426       | 5.21 | 634           | 307.4 | 25.7  | 5/16   | 3/8        | 3/8    | 7/16    | 9/16    |
| 398       | 4.93 | 592           | 290.9 | 27.2  | 5/16   | 3/8        | 3/8    | 7/16    | 5/8     |
| 370       | 4.63 | 551           | 273.2 | 28.9  | 5/16   | 3/8        | 3/8    | 7/16    | 5/8     |
| 342       | 4.32 | 509           | 254.9 | 31.0  | 5/16   | 3/8        | 3/8    | 1/2     | 11/16   |
| 311       | 3.98 | 463           | 234.8 | 33.7  | 5/16   | 3/8        | 3/8    | 1/2     | 3/4     |
| 283       | 3.66 | 421           | 215.9 | 36.6  | 5/16   | 3/8        | 3/8    | 9/16    | 3/4     |
| 257       | 3.36 | 382           | 198.2 | 39.9  | 5/16   | 3/8        | 3/8    | 9/16    | 13/16   |
| 233       | 3.08 | 347           | 181.7 | 43.5  | 5/16   | 3/8        | 3/8    | 5/8     | 7/8     |
| 211       | 2.81 | 314           | 165.8 | 47.7  | 5/16   | 3/8        | 7/16   | 11/16   | 15/16   |
| 193       | 2.6  | 287           | 153.4 | 51.5  | 5/16   | 3/8        | 7/16   | 3/4     | 1       |
| 176       | 2.38 | 262           | 140.4 | 56.3  | 5/16   | 3/8        | 1/2    | 3/4     | 1-1/8   |
| 159       | 2.16 | 237           | 127.4 | 62.0  | 5/16   | 7/16       | 1/2    | 13/16   | 1-3/16  |
| 145       | 1.99 | 216           | 117.4 | 67.3  | 5/16   | 7/16       | 9/16   | 7/8     | 1-1/4   |
| 132       | 1.89 | 196           | 111.5 | 70.9  | 5/16   | 7/16       | 9/16   | 15/16   | 1-5/16  |
| 120       | 1.71 | 179           | 100.9 | 78.4  | 5/16   | 1/2        | 5/8    | 1       | 1-3/8   |
| 109       | 1.57 | 162           | 92.6  | 85.3  | 3/8    | 1/2        | 5/8    | 1-1/16  | 1-1/2   |
| 99        | 1.43 | 147           | 84.4  | 93.7  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-5/8   |
| 90        | 1.31 | 134           | 77.3  | 102.3 | 3/8    | 9/16       | 3/4    | 1-3/16  | 1-11/16 |
| 82        | 1.45 | 122           | 85.6  | 92.4  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-9/16  |
| 74        | 1.32 | 110           | 77.9  | 101.5 | 3/8    | 9/16       | 3/4    | 1-3/16  | 1-11/16 |
| 68        | 1.22 | 101           | 72.0  | 109.8 | 7/16   | 5/8        | 3/4    | 1-1/4   | 1-3/4   |
| 61        | 1.1  | 91            | 64.9  | 121.8 | 7/16   | 5/8        | 13/16  | 1-5/16  | 1-7/8   |
| 53        | 1.06 | 79            | 62.5  | 126.4 | 7/16   | 11/16      | 13/16  | 1-3/8   | 1-15/16 |
| 48        | 0.97 | 72            | 57.2  | 138.1 | 1/2    | 11/16      | 7/8    | 1-7/16  | 2-1/16  |
| 43        | 0.87 | 64            | 51.3  | 154.0 | 1/2    | 3/4        | 15/16  | 1-1/2   | 2-3/16  |
| 38        | 0.8  | 57            | 47.2  | 167.5 | 9/16   | 13/16      | 1      | 1-5/8   | 2-5/16  |
| 34        | 0.72 | 51            | 42.5  | 186.1 | 9/16   | 13/16      | 1-1/16 | 1-11/16 | 2-7/16  |
| 30        | 0.64 | 45            | 37.8  | 209.3 | 5/8    | 7/8        | 1-1/8  | 1-13/16 | 2-9/16  |
| 26        | 0.62 | 39            | 36.6  | 216.1 | 5/8    | 7/8        | 1-1/8  | 1-13/16 | 2-5/8   |
| 22        | 0.53 | 33            | 31.3  | 252.8 | 5/8    | 15/16      | 1-3/16 | 2       | 2-13/16 |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM<br>Desig. | W/D  | Metric Desig. | M/D   | Hp/A  | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour  | 4-Hour  |
|----------------|------|---------------|-------|-------|--------|------------|--------|---------|---------|
| W12 x 336      | 4.85 | W310 x 500    | 286.2 | 27.6  | 5/16   | 3/8        | 3/8    | 7/16    | 5/8     |
| 305            | 4.49 | 454           | 264.9 | 29.8  | 5/16   | 3/8        | 3/8    | 7/16    | 5/8     |
| 279            | 4.19 | 415           | 247.2 | 32.0  | 5/16   | 3/8        | 3/8    | 1/2     | 11/16   |
| 252            | 3.84 | 375           | 226.6 | 34.9  | 5/16   | 3/8        | 3/8    | 1/2     | 3/4     |
| 230            | 3.55 | 342           | 209.5 | 37.7  | 5/16   | 3/8        | 3/8    | 9/16    | 13/16   |
| 210            | 3.27 | 313           | 192.9 | 41.0  | 5/16   | 3/8        | 3/8    | 5/8     | 7/8     |
| 190            | 3    | 283           | 177.0 | 44.7  | 5/16   | 3/8        | 3/8    | 5/8     | 15/16   |
| 170            | 2.72 | 253           | 160.5 | 49.3  | 5/16   | 3/8        | 7/16   | 11/16   | 1       |
| 152            | 2.45 | 225           | 144.6 | 54.7  | 5/16   | 3/8        | 7/16   | 3/4     | 1-1/16  |
| 136            | 2.23 | 202           | 131.6 | 60.1  | 5/16   | 3/8        | 1/2    | 13/16   | 1-1/8   |
| 120            | 1.99 | 179           | 117.4 | 67.3  | 5/16   | 7/16       | 9/16   | 7/8     | 1-1/4   |
| 106            | 1.77 | 158           | 104.4 | 75.7  | 5/16   | 1/2        | 9/16   | 15/16   | 1-3/8   |
| 96             | 1.61 | 143           | 95.0  | 83.2  | 3/8    | 1/2        | 5/8    | 1       | 1-7/16  |
| 87             | 1.47 | 129           | 86.7  | 91.1  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-9/16  |
| 79             | 1.34 | 117           | 79.1  | 100.0 | 3/8    | 9/16       | 11/16  | 1-3/16  | 1-11/16 |
| 72             | 1.23 | 107           | 72.6  | 108.9 | 7/16   | 5/8        | 3/4    | 1-1/4   | 1-3/4   |
| 65             | 1.11 | 97            | 65.5  | 120.7 | 7/16   | 5/8        | 13/16  | 1-5/16  | 1-7/8   |
| 58             | 1.1  | 86            | 64.9  | 121.8 | 7/16   | 5/8        | 13/16  | 1-5/16  | 1-7/8   |
| 53             | 1.02 | 79            | 60.2  | 131.4 | 7/16   | 11/16      | 7/8    | 1-3/8   | 2       |
| 50             | 1.06 | 74            | 62.5  | 126.4 | 7/16   | 11/16      | 13/16  | 1-3/8   | 1-15/16 |
| 45             | 0.97 | 67            | 57.2  | 138.1 | 1/2    | 11/16      | 7/8    | 1-7/16  | 2-1/16  |
| 40             | 0.86 | 60            | 50.7  | 155.8 | 1/2    | 3/4        | 15/16  | 1-9/16  | 2-3/16  |
| 35             | 0.81 | 52            | 47.8  | 165.4 | 1/2    | 3/4        | 15/16  | 1-9/16  | 2-1/4   |
| 30             | 0.69 | 45            | 40.7  | 194.2 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| 26             | 0.61 | 39            | 36.0  | 219.6 | 5/8    | 7/8        | 1-1/8  | 1-7/8   | 2-5/8   |
| 22             | 0.62 | 33            | 36.6  | 216.1 | 5/8    | 7/8        | 1-1/8  | 1-13/16 | 2-5/8   |
| 19             | 0.54 | 28            | 31.9  | 248.1 | 5/8    | 15/16      | 1-3/16 | 1-15/16 | 2-13/16 |
| 16             | 0.45 | 24            | 26.6  | 297.7 | 11/16  | 1-1/16     | 1-5/16 | 2-1/8   | 3-1/16  |
| 14             | 0.4  | 21            | 23.6  | 335.0 | 3/4    | 1-1/16     | 1-3/8  | 2-1/4   | 3-3/16  |
| W10 x 112      | 2.17 | W250 x 167    | 128.0 | 61.7  | 5/16   | 7/16       | 1/2    | 13/16   | 1-3/16  |
| 100            | 1.97 | 149           | 116.2 | 68.0  | 5/16   | 7/16       | 9/16   | 7/8     | 1-1/4   |
| 88             | 1.74 | 131           | 102.7 | 77.0  | 5/16   | 1/2        | 5/8    | 1       | 1-3/8   |
| 77             | 1.54 | 115           | 90.9  | 87.0  | 3/8    | 1/2        | 5/8    | 1-1/16  | 1-1/2   |
| 68             | 1.38 | 101           | 81.4  | 97.1  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-5/8   |
| 60             | 1.22 | 89            | 72.0  | 109.8 | 7/16   | 5/8        | 3/4    | 1-1/4   | 1-3/4   |
| 54             | 1.11 | 80            | 65.5  | 120.7 | 7/16   | 5/8        | 13/16  | 1-5/16  | 1-7/8   |
| 49             | 1.01 | 73            | 59.6  | 132.7 | 1/2    | 11/16      | 7/8    | 1-3/8   | 2       |
| 45             | 1.06 | 67            | 62.5  | 126.4 | 7/16   | 11/16      | 13/16  | 1-3/8   | 1-15/16 |
| 39             | 0.92 | 58            | 54.3  | 145.6 | 1/2    | 3/4        | 7/8    | 1-1/2   | 2-1/8   |
| 33             | 0.78 | 49            | 46.0  | 171.8 | 9/16   | 13/16      | 1      | 1-5/8   | 2-5/16  |
| 30             | 0.8  | 45            | 47.2  | 167.5 | 9/16   | 13/16      | 1      | 1-5/8   | 2-5/16  |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

*Restrained Beam*

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM     |      |               |      |       |        |            |        |         |         |
|----------|------|---------------|------|-------|--------|------------|--------|---------|---------|
| Desig.   | W/D  | Metric Desig. | M/D  | Hp/A  | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour  | 4-Hour  |
| W10 x 26 | 0.7  | W10 x 39      | 41.3 | 191.4 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| 22       | 0.6  | 33            | 35.4 | 223.3 | 5/8    | 15/16      | 1-1/8  | 1-7/8   | 2-11/16 |
| 19       | 0.6  | 28            | 35.4 | 223.3 | 5/8    | 15/16      | 1-1/8  | 1-7/8   | 2-11/16 |
| 17       | 0.54 | 25            | 31.9 | 248.1 | 5/8    | 15/16      | 1-3/16 | 1-15/16 | 2-13/16 |
| 15       | 0.48 | 22            | 28.3 | 279.1 | 11/16  | 1          | 1-1/4  | 2-1/16  | 2-15/16 |
| 12       | 0.39 | 18            | 23.0 | 343.5 | 3/4    | 1-1/8      | 1-3/8  | 2-1/4   | 3-1/4   |
|          |      |               |      |       |        |            |        |         |         |
| W8 x 67  | 1.65 | W200 x 100    | 97.4 | 81.2  | 3/8    | 1/2        | 5/8    | 1       | 1-7/16  |
| 58       | 1.44 | 86            | 85.0 | 93.0  | 3/8    | 9/16       | 11/16  | 1-1/8   | 1-9/16  |
| 48       | 1.21 | 71            | 71.4 | 110.7 | 7/16   | 5/8        | 3/4    | 1-1/4   | 1-13/16 |
| 40       | 1.03 | 59            | 60.8 | 130.1 | 7/16   | 11/16      | 13/16  | 1-3/8   | 2       |
| 35       | 0.9  | 52            | 53.1 | 148.9 | 1/2    | 3/4        | 15/16  | 1-1/2   | 2-1/8   |
| 31       | 0.8  | 46            | 47.2 | 167.5 | 9/16   | 13/16      | 1      | 1-5/8   | 2-5/16  |
| 28       | 0.81 | 42            | 47.8 | 165.4 | 1/2    | 3/4        | 15/16  | 1-9/16  | 2-1/4   |
| 24       | 0.7  | 36            | 41.3 | 191.4 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| 21       | 0.67 | 31            | 39.5 | 200.0 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| 18       | 0.58 | 27            | 34.2 | 231.0 | 5/8    | 15/16      | 1-1/8  | 1-7/8   | 2-3/4   |
| 15       | 0.55 | 22            | 32.5 | 243.6 | 5/8    | 15/16      | 1-3/16 | 1-15/16 | 2-13/16 |
| 13       | 0.48 | 19            | 28.3 | 279.1 | 11/16  | 1          | 1-1/4  | 2-1/16  | 2-15/16 |
| 10       | 0.37 | 15            | 21.8 | 362.1 | 3/4    | 1-1/8      | 1-3/8  | 2-5/16  | 3-5/16  |
|          |      |               |      |       |        |            |        |         |         |
| W6 x 25  | 0.83 | W150 x 37     | 49.0 | 161.4 | 1/2    | 3/4        | 15/16  | 1-9/16  | 2-1/4   |
| 20       | 0.67 | 30            | 39.5 | 200.0 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| 16       | 0.68 | 24            | 40.1 | 197.0 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |
| 15       | 0.52 | 22            | 30.7 | 257.7 | 11/16  | 1          | 1-3/16 | 2       | 2-7/8   |
| 12       | 0.52 | 18            | 30.7 | 257.7 | 11/16  | 1          | 1-3/16 | 2       | 2-7/8   |
| 9        | 0.39 | 14            | 23.0 | 343.5 | 3/4    | 1-1/8      | 1-3/8  | 2-1/4   | 3-1/4   |
| 8.5      | 0.37 | 13            | 21.8 | 362.1 | 3/4    | 1-1/8      | 1-3/8  | 2-5/16  | 3-5/16  |
|          |      |               |      |       |        |            |        |         |         |
| W5 x 19  | 0.77 | W130 x 28     | 45.4 | 174.0 | 9/16   | 13/16      | 1      | 1-5/8   | 2-3/8   |
| 16       | 0.66 | 24            | 38.9 | 203.0 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-9/16  |
|          |      |               |      |       |        |            |        |         |         |
| W4 x 13  | 0.67 | W100 x 19     | 39.5 | 200.0 | 9/16   | 7/8        | 1-1/16 | 1-3/4   | 2-1/2   |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

## Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM<br>Desig. | W/D  | Metric Desig. | M/D   | Hp/A | 2-1/2 Hour | 3-1/2 Hour |
|----------------|------|---------------|-------|------|------------|------------|
| W44 x 335      | 2.52 | W1120 x 498   | 148.7 | 53.2 | 5/8        | 15/16      |
| 290            | 2.2  | 432           | 129.8 | 60.9 | 11/16      | 1          |
| 262            | 2    | 390           | 118.0 | 67.0 | 11/16      | 1-1/16     |
| 230            | 1.77 | 342           | 104.4 | 75.7 | 3/4        | 1-3/16     |
| W40 x 593      | 4.56 | W1000 x 883   | 269.0 | 29.4 | 3/8        | 9/16       |
| 503            | 3.93 | 748           | 231.9 | 34.1 | 7/16       | 5/8        |
| 431            | 3.42 | 641           | 201.8 | 39.2 | 1/2        | 11/16      |
| 397            | 3.15 | 591           | 185.9 | 42.5 | 1/2        | 3/4        |
| 392            | 3.38 | 583           | 199.4 | 39.6 | 1/2        | 11/16      |
| 372            | 2.98 | 554           | 175.8 | 45.0 | 1/2        | 13/16      |
| 362            | 2.9  | 539           | 171.1 | 46.2 | 9/16       | 13/16      |
| 331            | 2.9  | 493           | 171.1 | 46.2 | 9/16       | 13/16      |
| 327            | 2.89 | 487           | 170.5 | 46.4 | 9/16       | 13/16      |
| 324            | 2.61 | 482           | 154.0 | 51.3 | 9/16       | 7/8        |
| 297            | 2.41 | 442           | 142.2 | 55.6 | 5/8        | 15/16      |
| 278            | 2.48 | 414           | 146.3 | 54.0 | 5/8        | 15/16      |
| 277            | 2.25 | 412           | 132.8 | 59.5 | 5/8        | 1          |
| 264            | 2.36 | 393           | 139.2 | 56.8 | 5/8        | 15/16      |
| 249            | 2.02 | 371           | 119.2 | 66.3 | 11/16      | 1-1/16     |
| 235            | 2.1  | 350           | 123.9 | 63.8 | 11/16      | 1-1/16     |
| 215            | 1.76 | 321           | 103.8 | 76.1 | 3/4        | 1-3/16     |
| 211            | 1.9  | 314           | 112.1 | 70.5 | 3/4        | 1-1/8      |
| 199            | 1.64 | 296           | 96.8  | 81.7 | 13/16      | 1-1/4      |
| 183            | 1.66 | 272           | 97.9  | 80.7 | 13/16      | 1-1/4      |
| 167            | 1.53 | 249           | 90.3  | 87.6 | 7/8        | 1-5/16     |
| 149            | 1.37 | 222           | 80.8  | 97.8 | 15/16      | 1-7/16     |
| W36 x 798      | 6.09 | W920 x 1188   | 359.3 | 22.0 | 3/8        | 7/16       |
| 650            | 5.08 | 967           | 299.7 | 26.4 | 3/8        | 1/2        |
| 527            | 4.22 | 784           | 249.0 | 31.7 | 3/8        | 5/8        |
| 439            | 3.57 | 653           | 210.6 | 37.5 | 7/16       | 11/16      |
| 393            | 3.25 | 585           | 191.8 | 41.2 | 1/2        | 3/4        |
| 359            | 2.97 | 534           | 175.2 | 45.1 | 1/2        | 13/16      |
| 328            | 2.73 | 488           | 161.1 | 49.1 | 9/16       | 7/8        |
| 300            | 2.5  | 446           | 147.5 | 53.6 | 5/8        | 15/16      |
| 280            | 2.35 | 417           | 138.7 | 57.0 | 5/8        | 15/16      |
| 260            | 2.18 | 387           | 128.6 | 61.5 | 11/16      | 1          |
| 256            | 2.37 | 381           | 139.8 | 56.5 | 5/8        | 15/16      |
| 245            | 2.08 | 365           | 122.7 | 64.4 | 11/16      | 1-1/16     |
| 232            | 2.15 | 345           | 126.9 | 62.3 | 11/16      | 1          |
| 230            | 1.95 | 342           | 115.1 | 68.7 | 3/4        | 1-1/8      |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.



## N815 - Half-Flange Tip Option

## Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |       |            |            |
|-----------|------|---------------|-------|-------|------------|------------|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A  | 2-1/2 Hour | 3-1/2 Hour |
| W36 x 210 | 1.96 | W920 x 313    | 115.6 | 68.4  | 3/4        | 1-1/8      |
| 194       | 1.81 | 289           | 106.8 | 74.0  | 3/4        | 1-3/16     |
| 182       | 1.72 | 271           | 101.5 | 77.9  | 13/16      | 1-3/16     |
| 170       | 1.6  | 253           | 94.4  | 83.7  | 13/16      | 1-1/4      |
| 160       | 1.51 | 238           | 89.1  | 88.7  | 7/8        | 1-5/16     |
| 150       | 1.43 | 223           | 84.4  | 93.7  | 7/8        | 1-3/8      |
| 135       | 1.29 | 201           | 76.1  | 103.9 | 15/16      | 1-1/2      |
|           |      |               |       |       |            |            |
| W33 x 387 | 3.31 | W840 x 576    | 195.3 | 40.5  | 1/2        | 3/4        |
| 354       | 3.05 | 527           | 180.0 | 43.9  | 1/2        | 3/4        |
| 318       | 2.77 | 473           | 163.4 | 48.4  | 9/16       | 13/16      |
| 291       | 2.55 | 433           | 150.5 | 52.5  | 9/16       | 7/8        |
| 263       | 2.33 | 392           | 137.5 | 57.5  | 5/8        | 15/16      |
| 241       | 2.13 | 359           | 125.7 | 62.9  | 11/16      | 1-1/16     |
| 221       | 1.97 | 329           | 116.2 | 68.0  | 11/16      | 1-1/8      |
| 201       | 1.79 | 299           | 105.6 | 74.9  | 3/4        | 1-3/16     |
| 169       | 1.7  | 251           | 100.3 | 78.8  | 13/16      | 1-1/4      |
| 152       | 1.53 | 226           | 90.3  | 87.6  | 7/8        | 1-5/16     |
| 141       | 1.43 | 210           | 84.4  | 93.7  | 7/8        | 1-3/8      |
| 130       | 1.32 | 193           | 77.9  | 101.5 | 15/16      | 1-7/16     |
| 118       | 1.21 | 176           | 71.4  | 110.7 | 1          | 1-9/16     |
|           |      |               |       |       |            |            |
| W30 x 391 | 3.59 | W760 x 582    | 211.8 | 37.3  | 7/16       | 11/16      |
| 357       | 3.31 | 531           | 195.3 | 40.5  | 1/2        | 3/4        |
| 326       | 3.05 | 484           | 180.0 | 43.9  | 1/2        | 3/4        |
| 292       | 2.73 | 434           | 161.1 | 49.1  | 9/16       | 7/8        |
| 261       | 2.46 | 389           | 145.1 | 54.5  | 5/8        | 15/16      |
| 235       | 2.24 | 350           | 132.2 | 59.8  | 5/8        | 1          |
| 211       | 2.01 | 314           | 118.6 | 66.7  | 11/16      | 1-1/16     |
| 191       | 1.85 | 284           | 109.2 | 72.4  | 3/4        | 1-1/8      |
| 173       | 1.66 | 257           | 97.9  | 80.7  | 13/16      | 1-1/4      |
| 148       | 1.64 | 220           | 96.8  | 81.7  | 13/16      | 1-1/4      |
| 132       | 1.47 | 196           | 86.7  | 91.1  | 7/8        | 1-3/8      |
| 124       | 1.39 | 185           | 82.0  | 96.4  | 15/16      | 1-3/8      |
| 116       | 1.3  | 173           | 76.7  | 103.1 | 15/16      | 1-1/2      |
| 108       | 1.21 | 161           | 71.4  | 110.7 | 1          | 1-9/16     |
| 99        | 1.12 | 147           | 66.1  | 119.6 | 1-1/16     | 1-5/8      |
| 90        | 1.02 | 134           | 60.2  | 131.4 | 1-1/8      | 1-11/16    |
|           |      |               |       |       |            |            |
| W27 x 539 | 5.08 | W690 x 802    | 299.7 | 26.4  | 3/8        | 1/2        |
| 368       | 3.64 | 548           | 214.8 | 36.8  | 7/16       | 11/16      |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

## Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |       |            |            |
|-----------|------|---------------|-------|-------|------------|------------|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A  | 2-1/2 Hour | 3-1/2 Hour |
| W27 x 336 | 3.36 | W690 x 500    | 198.2 | 39.9  | 1/2        | 3/4        |
| 307       | 3.11 | 457           | 183.5 | 43.1  | 1/2        | 3/4        |
| 281       | 2.86 | 418           | 168.7 | 46.8  | 9/16       | 13/16      |
| 258       | 2.64 | 384           | 155.8 | 50.8  | 9/16       | 7/8        |
| 235       | 2.43 | 350           | 143.4 | 55.1  | 5/8        | 15/16      |
| 217       | 2.26 | 323           | 133.3 | 59.3  | 5/8        | 1          |
| 194       | 2.03 | 289           | 119.8 | 66.0  | 11/16      | 1-1/16     |
| 178       | 1.87 | 265           | 110.3 | 71.6  | 3/4        | 1-1/8      |
| 161       | 1.7  | 240           | 100.3 | 78.8  | 13/16      | 1-1/4      |
| 146       | 1.55 | 217           | 91.5  | 86.4  | 7/8        | 1-5/16     |
| 129       | 1.56 | 192           | 92.0  | 85.9  | 7/8        | 1-5/16     |
| 114       | 1.39 | 170           | 82.0  | 96.4  | 15/16      | 1-3/8      |
| 102       | 1.24 | 152           | 73.2  | 108.1 | 1          | 1-1/2      |
| 94        | 1.15 | 140           | 67.9  | 116.5 | 1-1/16     | 1-9/16     |
| 84        | 1.03 | 125           | 60.8  | 130.1 | 1-1/8      | 1-11/16    |
|           |      |               |       |       |            |            |
| W24 x 370 | 3.98 | W610 x 551    | 234.8 | 33.7  | 7/16       | 5/8        |
| 335       | 3.66 | 498           | 215.9 | 36.6  | 7/16       | 11/16      |
| 306       | 3.37 | 455           | 198.8 | 39.8  | 1/2        | 3/4        |
| 279       | 3.11 | 415           | 183.5 | 43.1  | 1/2        | 3/4        |
| 250       | 2.81 | 372           | 165.8 | 47.7  | 9/16       | 13/16      |
| 229       | 2.6  | 341           | 153.4 | 51.5  | 9/16       | 7/8        |
| 207       | 2.36 | 307           | 139.2 | 56.8  | 5/8        | 15/16      |
| 192       | 2.2  | 285           | 129.8 | 60.9  | 11/16      | 1          |
| 176       | 2.03 | 262           | 119.8 | 66.0  | 11/16      | 1-1/16     |
| 162       | 1.88 | 241           | 110.9 | 71.3  | 3/4        | 1-1/8      |
| 146       | 1.7  | 217           | 100.3 | 78.8  | 13/16      | 1-1/4      |
| 131       | 1.54 | 195           | 90.9  | 87.0  | 7/8        | 1-5/16     |
| 117       | 1.38 | 174           | 81.4  | 97.1  | 15/16      | 1-7/16     |
| 104       | 1.24 | 155           | 73.2  | 108.1 | 1          | 1-1/2      |
| 103       | 1.4  | 153           | 82.6  | 95.7  | 15/16      | 1-3/8      |
| 94        | 1.28 | 140           | 75.5  | 104.7 | 15/16      | 1-1/2      |
| 84        | 1.15 | 125           | 67.9  | 116.5 | 1-1/16     | 1-9/16     |
| 76        | 1.05 | 113           | 62.0  | 127.6 | 1-1/8      | 1-11/16    |
| 68        | 0.94 | 101           | 55.5  | 142.5 | 1-3/16     | 1-13/16    |
| 62        | 0.93 | 92            | 54.9  | 144.1 | 1-3/16     | 1-13/16    |
| 55        | 0.82 | 82            | 48.4  | 163.4 | 1-1/4      | 1-15/16    |
|           |      |               |       |       |            |            |
| W21 x 201 | 2.5  | W530 x 300    | 147.5 | 53.6  | 5/8        | 15/16      |
| 182       | 2.28 | 272           | 134.5 | 58.8  | 5/8        | 1          |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

## Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM<br>Desig. | W/D  | Metric Desig. | M/D   | Hp/A  | 2-1/2 Hour | 3-1/2 Hour |
|----------------|------|---------------|-------|-------|------------|------------|
| W21 x 166      | 2.09 | W530 x 248    | 123.3 | 64.1  | 11/16      | 1-1/16     |
| 147            | 1.87 | 219           | 110.3 | 71.6  | 3/4        | 1-1/8      |
| 132            | 1.68 | 196           | 99.1  | 79.8  | 13/16      | 1-1/4      |
| 122            | 1.57 | 182           | 92.6  | 85.3  | 13/16      | 1-5/16     |
| 111            | 1.43 | 165           | 84.4  | 93.7  | 7/8        | 1-3/8      |
| 101            | 1.3  | 150           | 76.7  | 103.1 | 15/16      | 1-1/2      |
| 93             | 1.4  | 138           | 82.6  | 95.7  | 15/16      | 1-3/8      |
| 83             | 1.26 | 123           | 74.3  | 106.3 | 1          | 1-1/2      |
| 73             | 1.11 | 109           | 65.5  | 120.7 | 1-1/16     | 1-5/8      |
| 68             | 1.04 | 101           | 61.4  | 128.8 | 1-1/8      | 1-11/16    |
| 62             | 0.95 | 92            | 56.1  | 141.0 | 1-3/16     | 1-13/16    |
| 57             | 0.95 | 85            | 56.1  | 141.0 | 1-3/16     | 1-13/16    |
| 55             | 0.85 | 82            | 50.2  | 157.6 | 1-1/4      | 1-15/16    |
| 50             | 0.83 | 74            | 49.0  | 161.4 | 1-1/4      | 1-15/16    |
| 48             | 0.75 | 72            | 44.3  | 178.6 | 1-5/16     | 2-1/16     |
| 44             | 0.74 | 66            | 43.7  | 181.1 | 1-3/8      | 2-1/16     |
| W18 x 175      | 2.46 | W460 x 260    | 145.1 | 54.5  | 5/8        | 15/16      |
| 158            | 2.24 | 235           | 132.2 | 59.8  | 5/8        | 1          |
| 143            | 2.05 | 213           | 121.0 | 65.4  | 11/16      | 1-1/16     |
| 130            | 1.88 | 193           | 110.9 | 71.3  | 3/4        | 1-1/8      |
| 119            | 1.72 | 177           | 101.5 | 77.9  | 13/16      | 1-3/16     |
| 106            | 1.55 | 158           | 91.5  | 86.4  | 7/8        | 1-5/16     |
| 97             | 1.42 | 144           | 83.8  | 94.4  | 7/8        | 1-3/8      |
| 86             | 1.27 | 128           | 74.9  | 105.5 | 1          | 1-1/2      |
| 76             | 1.13 | 113           | 66.7  | 118.6 | 1-1/16     | 1-5/8      |
| 71             | 1.22 | 106           | 72.0  | 109.8 | 1          | 1-9/16     |
| 65             | 1.13 | 97            | 66.7  | 118.6 | 1-1/16     | 1-5/8      |
| 60             | 1.04 | 89            | 61.4  | 128.8 | 1-1/8      | 1-11/16    |
| 55             | 0.96 | 82            | 56.6  | 139.6 | 1-3/16     | 1-13/16    |
| 50             | 0.88 | 74            | 51.9  | 152.3 | 1-1/4      | 1-7/8      |
| 46             | 0.87 | 68            | 51.3  | 154.0 | 1-1/4      | 1-7/8      |
| 40             | 0.76 | 60            | 44.8  | 176.3 | 1-5/16     | 2-1/16     |
| 35             | 0.67 | 52            | 39.5  | 200.0 | 1-7/16     | 2-3/16     |
| W16 x 100      | 1.59 | W410 x 149    | 93.8  | 84.3  | 13/16      | 1-1/4      |
| 89             | 1.43 | 132           | 84.4  | 93.7  | 7/8        | 1-3/8      |
| 77             | 1.25 | 114           | 73.8  | 107.2 | 1          | 1-1/2      |
| 67             | 1.09 | 100           | 64.3  | 122.9 | 1-1/16     | 1-5/8      |
| 57             | 1.09 | 85            | 64.3  | 122.9 | 1-1/16     | 1-5/8      |
| 50             | 0.96 | 74            | 56.6  | 139.6 | 1-3/16     | 1-13/16    |
| 45             | 0.87 | 67            | 51.3  | 154.0 | 1-1/4      | 1-7/8      |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

## Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |       |            |            |  |
|-----------|------|---------------|-------|-------|------------|------------|--|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A  | 2-1/2 Hour | 3-1/2 Hour |  |
| W16 x 40  | 0.78 | W410 x 60     | 46.0  | 171.8 | 1-5/16     | 2          |  |
| 36        | 0.7  | 53            | 41.3  | 191.4 | 1-3/8      | 2-1/8      |  |
| 31        | 0.66 | 46            | 38.9  | 203.0 | 1-7/16     | 2-3/16     |  |
| 26        | 0.55 | 39            | 32.5  | 243.6 | 1-9/16     | 2-7/16     |  |
| W14 x 808 | 8.75 | W360 x 1202   | 516.3 | 15.3  | 3/8        | 3/8        |  |
| 730       | 8.08 | 1086          | 476.7 | 16.6  | 3/8        | 3/8        |  |
| 665       | 7.49 | 990           | 441.9 | 17.9  | 3/8        | 3/8        |  |
| 605       | 6.96 | 900           | 410.6 | 19.3  | 3/8        | 3/8        |  |
| 550       | 6.43 | 818           | 379.4 | 20.8  | 3/8        | 7/16       |  |
| 500       | 5.95 | 744           | 351.1 | 22.5  | 3/8        | 7/16       |  |
| 455       | 5.53 | 677           | 326.3 | 24.2  | 3/8        | 1/2        |  |
| 426       | 5.21 | 634           | 307.4 | 25.7  | 3/8        | 1/2        |  |
| 398       | 4.93 | 592           | 290.9 | 27.2  | 3/8        | 1/2        |  |
| 370       | 4.63 | 551           | 273.2 | 28.9  | 3/8        | 9/16       |  |
| 342       | 4.32 | 509           | 254.9 | 31.0  | 3/8        | 9/16       |  |
| 311       | 3.98 | 463           | 234.8 | 33.7  | 7/16       | 5/8        |  |
| 283       | 3.66 | 421           | 215.9 | 36.6  | 7/16       | 11/16      |  |
| 257       | 3.36 | 382           | 198.2 | 39.9  | 1/2        | 3/4        |  |
| 233       | 3.08 | 347           | 181.7 | 43.5  | 1/2        | 3/4        |  |
| 211       | 2.81 | 314           | 165.8 | 47.7  | 9/16       | 13/16      |  |
| 193       | 2.6  | 287           | 153.4 | 51.5  | 9/16       | 7/8        |  |
| 176       | 2.38 | 262           | 140.4 | 56.3  | 5/8        | 15/16      |  |
| 159       | 2.16 | 237           | 127.4 | 62.0  | 11/16      | 1          |  |
| 145       | 1.99 | 216           | 117.4 | 67.3  | 11/16      | 1-1/16     |  |
| 132       | 1.89 | 196           | 111.5 | 70.9  | 3/4        | 1-1/8      |  |
| 120       | 1.71 | 179           | 100.9 | 78.4  | 13/16      | 1-3/16     |  |
| 109       | 1.57 | 162           | 92.6  | 85.3  | 13/16      | 1-5/16     |  |
| 99        | 1.43 | 147           | 84.4  | 93.7  | 7/8        | 1-3/8      |  |
| 90        | 1.31 | 134           | 77.3  | 102.3 | 15/16      | 1-7/16     |  |
| 82        | 1.45 | 122           | 85.6  | 92.4  | 7/8        | 1-3/8      |  |
| 74        | 1.32 | 110           | 77.9  | 101.5 | 15/16      | 1-7/16     |  |
| 68        | 1.22 | 101           | 72.0  | 109.8 | 1          | 1-9/16     |  |
| 61        | 1.1  | 91            | 64.9  | 121.8 | 1-1/16     | 1-5/8      |  |
| 53        | 1.06 | 79            | 62.5  | 126.4 | 1-1/16     | 1-11/16    |  |
| 48        | 0.97 | 72            | 57.2  | 138.1 | 1-1/8      | 1-3/4      |  |
| 43        | 0.87 | 64            | 51.3  | 154.0 | 1-1/4      | 1-7/8      |  |
| 38        | 0.8  | 57            | 47.2  | 167.5 | 1-5/16     | 2          |  |
| 34        | 0.72 | 51            | 42.5  | 186.1 | 1-3/8      | 2-1/8      |  |
| 30        | 0.64 | 45            | 37.8  | 209.3 | 1-7/16     | 2-1/4      |  |
| 26        | 0.62 | 39            | 36.6  | 216.1 | 1-1/2      | 2-1/4      |  |
| 22        | 0.53 | 33            | 31.3  | 252.8 | 1-9/16     | 2-7/16     |  |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

## Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM      |      |               |       |       |            |            |
|-----------|------|---------------|-------|-------|------------|------------|
| Desig.    | W/D  | Metric Desig. | M/D   | Hp/A  | 2-1/2 Hour | 3-1/2 Hour |
| W12 x 336 | 4.85 | W310 x 500    | 286.2 | 27.6  | 3/8        | 9/16       |
| 305       | 4.49 | 454           | 264.9 | 29.8  | 3/8        | 9/16       |
| 279       | 4.19 | 415           | 247.2 | 32.0  | 3/8        | 5/8        |
| 252       | 3.84 | 375           | 226.6 | 34.9  | 7/16       | 5/8        |
| 230       | 3.55 | 342           | 209.5 | 37.7  | 7/16       | 11/16      |
| 210       | 3.27 | 313           | 192.9 | 41.0  | 1/2        | 3/4        |
| 190       | 3    | 283           | 177.0 | 44.7  | 1/2        | 13/16      |
| 170       | 2.72 | 253           | 160.5 | 49.3  | 9/16       | 7/8        |
| 152       | 2.45 | 225           | 144.6 | 54.7  | 5/8        | 15/16      |
| 136       | 2.23 | 202           | 131.6 | 60.1  | 5/8        | 1          |
| 120       | 1.99 | 179           | 117.4 | 67.3  | 11/16      | 1-1/16     |
| 106       | 1.77 | 158           | 104.4 | 75.7  | 3/4        | 1-3/16     |
| 96        | 1.61 | 143           | 95.0  | 83.2  | 13/16      | 1-1/4      |
| 87        | 1.47 | 129           | 86.7  | 91.1  | 7/8        | 1-3/8      |
| 79        | 1.34 | 117           | 79.1  | 100.0 | 15/16      | 1-7/16     |
| 72        | 1.23 | 107           | 72.6  | 108.9 | 1          | 1-1/2      |
| 65        | 1.11 | 97            | 65.5  | 120.7 | 1-1/16     | 1-5/8      |
| 58        | 1.1  | 86            | 64.9  | 121.8 | 1-1/16     | 1-5/8      |
| 53        | 1.02 | 79            | 60.2  | 131.4 | 1-1/8      | 1-11/16    |
| 50        | 1.06 | 74            | 62.5  | 126.4 | 1-1/16     | 1-11/16    |
| 45        | 0.97 | 67            | 57.2  | 138.1 | 1-1/8      | 1-3/4      |
| 40        | 0.86 | 60            | 50.7  | 155.8 | 1-1/4      | 1-7/8      |
| 35        | 0.81 | 52            | 47.8  | 165.4 | 1-1/4      | 1-15/16    |
| 30        | 0.69 | 45            | 40.7  | 194.2 | 1-3/8      | 2-1/8      |
| 26        | 0.61 | 39            | 36.0  | 219.6 | 1-1/2      | 2-5/16     |
| 22        | 0.62 | 33            | 36.6  | 216.1 | 1-1/2      | 2-1/4      |
| 19        | 0.54 | 28            | 31.9  | 248.1 | 1-9/16     | 2-7/16     |
| 16        | 0.45 | 24            | 26.6  | 297.7 | 1-11/16    | 2-5/8      |
| 14        | 0.4  | 21            | 23.6  | 335.0 | 1-13/16    | 2-3/4      |
| W10 x 112 | 2.17 | W250 x 167    | 128.0 | 61.7  | 11/16      | 1          |
| 100       | 1.97 | 149           | 116.2 | 68.0  | 11/16      | 1-1/8      |
| 88        | 1.74 | 131           | 102.7 | 77.0  | 13/16      | 1-3/16     |
| 77        | 1.54 | 115           | 90.9  | 87.0  | 7/8        | 1-5/16     |
| 68        | 1.38 | 101           | 81.4  | 97.1  | 15/16      | 1-7/16     |
| 60        | 1.22 | 89            | 72.0  | 109.8 | 1          | 1-9/16     |
| 54        | 1.11 | 80            | 65.5  | 120.7 | 1-1/16     | 1-5/8      |
| 49        | 1.01 | 73            | 59.6  | 132.7 | 1-1/8      | 1-3/4      |
| 45        | 1.06 | 67            | 62.5  | 126.4 | 1-1/16     | 1-11/16    |
| 39        | 0.92 | 58            | 54.3  | 145.6 | 1-3/16     | 1-13/16    |
| 33        | 0.78 | 49            | 46.0  | 171.8 | 1-5/16     | 2          |
| 30        | 0.8  | 45            | 47.2  | 167.5 | 1-5/16     | 2          |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.

## N815 - Half-Flange Tip Option

## Restrained Beam

All-Fluted Deck

Normal Weight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

| ASTM<br>Desig. | W/D  | Metric Desig. | M/D  | Hp/A  | 2-1/2 Hour | 3-1/2 Hour |
|----------------|------|---------------|------|-------|------------|------------|
| W10 x 26       | 0.7  | W10 x 39      | 41.3 | 191.4 | 1-3/8      | 2-1/8      |
| 22             | 0.6  | 33            | 35.4 | 223.3 | 1-1/2      | 2-5/16     |
| 19             | 0.6  | 28            | 35.4 | 223.3 | 1-1/2      | 2-5/16     |
| 17             | 0.54 | 25            | 31.9 | 248.1 | 1-9/16     | 2-7/16     |
| 15             | 0.48 | 22            | 28.3 | 279.1 | 1-11/16    | 2-9/16     |
| 12             | 0.39 | 18            | 23.0 | 343.5 | 1-13/16    | 2-13/16    |
| W8 x 67        | 1.65 | W200 x 100    | 97.4 | 81.2  | 13/16      | 1-1/4      |
| 58             | 1.44 | 86            | 85.0 | 93.0  | 7/8        | 1-3/8      |
| 48             | 1.21 | 71            | 71.4 | 110.7 | 1          | 1-9/16     |
| 40             | 1.03 | 59            | 60.8 | 130.1 | 1-1/8      | 1-11/16    |
| 35             | 0.9  | 52            | 53.1 | 148.9 | 1-3/16     | 1-7/8      |
| 31             | 0.8  | 46            | 47.2 | 167.5 | 1-5/16     | 2          |
| 28             | 0.81 | 42            | 47.8 | 165.4 | 1-1/4      | 1-15/16    |
| 24             | 0.7  | 36            | 41.3 | 191.4 | 1-3/8      | 2-1/8      |
| 21             | 0.67 | 31            | 39.5 | 200.0 | 1-7/16     | 2-3/16     |
| 18             | 0.58 | 27            | 34.2 | 231.0 | 1-1/2      | 2-3/8      |
| 15             | 0.55 | 22            | 32.5 | 243.6 | 1-9/16     | 2-7/16     |
| 13             | 0.48 | 19            | 28.3 | 279.1 | 1-11/16    | 2-9/16     |
| 10             | 0.37 | 15            | 21.8 | 362.1 | 1-7/8      | 2-7/8      |
| W6 x 25        | 0.83 | W150 x 37     | 49.0 | 161.4 | 1-1/4      | 1-15/16    |
| 20             | 0.67 | 30            | 39.5 | 200.0 | 1-7/16     | 2-3/16     |
| 16             | 0.68 | 24            | 40.1 | 197.0 | 1-7/16     | 2-3/16     |
| 15             | 0.52 | 22            | 30.7 | 257.7 | 1-5/8      | 2-1/2      |
| 12             | 0.52 | 18            | 30.7 | 257.7 | 1-5/8      | 2-1/2      |
| 9              | 0.39 | 14            | 23.0 | 343.5 | 1-13/16    | 2-13/16    |
| 8.5            | 0.37 | 13            | 21.8 | 362.1 | 1-7/8      | 2-7/8      |
| W5 x 19        | 0.77 | W130 x 28     | 45.4 | 174.0 | 1-5/16     | 2          |
| 16             | 0.66 | 24            | 38.9 | 203.0 | 1-7/16     | 2-3/16     |
| W4 x 13        | 0.67 | W100 x 19     | 39.5 | 200.0 | 1-7/16     | 2-3/16     |

Note: The flutes may be "plugged" for all hourly ratings.

The thickness applied to the lower flange tips may be reduced to one-half the listed thickness in this design.