

X827

**Structural Steel Square Tube Columns
CAFCO BLAZE-SHIELD II, HP**

| ASTM Desig. | Wall Thk | A/P | Metric Desig. | M/D | Hp/A | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour | 4-Hour |
|-------------|----------|------|------------------|-------|-------|--------|------------|---------|--------|---------|
| 30 x 30 | 5/8 | 0.61 | 762 x 762 x 15.9 | 121.2 | 64.3 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| 28 x 28 | 5/8 | 0.61 | 711 x 711 x 15.9 | 120.9 | 64.4 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| 26 x 26 | 5/8 | 0.61 | 660 x 660 x 15.9 | 120.5 | 64.6 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| 24 x 24 | 5/8 | 0.61 | 610 x 610 x 15.9 | 120.1 | 64.8 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.49 | x 12.7 | 96.9 | 80.4 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 3/8 | 0.37 | x 9.5 | 73.4 | 106.1 | 1/2 | 13/16 | 1-1/4 | 2 | 2-3/4 |
| 22 x 22 | 5/8 | 0.61 | 559 x 559 x 15.9 | 119.6 | 65.1 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.49 | x 12.7 | 96.6 | 80.6 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 3/8 | 0.37 | x 9.5 | 73.2 | 106.4 | 1/2 | 13/16 | 1-1/4 | 2 | 2-3/4 |
| 20 x 20 | 5/8 | 0.61 | 508 x 508 x 15.9 | 119 | 65.4 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.49 | x 12.7 | 96.3 | 80.9 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 3/8 | 0.37 | x 9.5 | 73 | 106.7 | 1/2 | 13/16 | 1-1/4 | 2 | 2-3/4 |
| 18 x 18 | 5/8 | 0.60 | 457 x 457 x 15.9 | 118.3 | 65.8 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.49 | x 12.7 | 95.8 | 81.3 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 3/8 | 0.37 | x 9.5 | 72.7 | 107.1 | 1/2 | 13/16 | 1-1/4 | 2 | 2-3/4 |
| 16 x 16 | 5/8 | 0.60 | 406 x 406 x 15.9 | 117.4 | 66.3 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.49 | x 12.7 | 95.2 | 81.8 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 3/8 | 0.37 | x 9.5 | 72.4 | 107.6 | 1/2 | 13/16 | 1-1/4 | 2 | 2-3/4 |
| | 5/16 | 0.31 | x 7.9 | 60.7 | 128.3 | 9/16 | 1-1/16 | 1-1/2 | 2-3/8 | 3-5/16 |
| 14 x 14 | 5/8 | 0.60 | 356 x 356 x 15.9 | 116.3 | 67.0 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.48 | x 12.7 | 94.5 | 82.4 | 3/8 | 11/16 | 1 | 1-9/16 | 2-1/8 |
| | 3/8 | 0.36 | x 9.5 | 72 | 108.2 | 1/2 | 13/16 | 1-1/4 | 2-1/16 | 2-13/16 |
| | 5/16 | 0.31 | x 7.9 | 60.4 | 128.9 | 9/16 | 1-1/16 | 1-1/2 | 2-3/8 | 3-5/16 |
| 12 x 12 | 5/8 | 0.59 | 305 x 305 x 15.9 | 114.7 | 67.9 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.48 | x 12.7 | 93 | 83.7 | 3/8 | 11/16 | 1 | 1-9/16 | 2-1/8 |
| | 3/8 | 0.36 | x 9.5 | 71.4 | 109.1 | 1/2 | 13/16 | 1-1/4 | 2-1/16 | 2-13/16 |
| | 5/16 | 0.30 | x 7.9 | 60.1 | 129.6 | 5/8 | 1-1/16 | 1-9/16 | 2-1/2 | 3-3/8 |
| | 1/4 | 0.24 | x 6.4 | 48.8 | 159.6 | 3/4 | 1-5/16 | 1-15/16 | 3-1/16 | NR |
| 10 x 10 | 5/8 | 0.59 | 254 x 254 x 15.9 | 112.6 | 69.2 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.48 | x 12.7 | 92.1 | 84.6 | 3/8 | 11/16 | 1 | 1-9/16 | 2-1/8 |
| | 3/8 | 0.36 | x 9.5 | 70 | 111.3 | 1/2 | 13/16 | 1-1/4 | 2-1/16 | 2-13/16 |
| | 5/16 | 0.30 | x 7.9 | 59.5 | 130.9 | 5/8 | 1-1/16 | 1-9/16 | 2-1/2 | 3-3/8 |
| | 1/4 | 0.24 | x 6.4 | 48.1 | 161.9 | 3/4 | 1-5/16 | 1-15/16 | 3-1/16 | NR |
| | 3/16 | 0.18 | x 4.8 | 36.5 | 213.4 | 1 | 1-9/16 | 2-3/16 | 4 | NR |
| 8 x 8 | 5/8 | 0.58 | 203 x 203 x 15.9 | 108 | 72.1 | 3/8 | 7/16 | 11/16 | 1-1/8 | 1-5/8 |
| | 1/2 | 0.47 | x 12.7 | 89 | 87.5 | 3/8 | 11/16 | 1 | 1-9/16 | 2-3/16 |
| | 3/8 | 0.36 | x 9.5 | 69.5 | 112.1 | 1/2 | 13/16 | 1-1/4 | 2-1/16 | 2-13/16 |
| | 5/16 | 0.30 | x 7.9 | 58.7 | 132.7 | 5/8 | 1-1/16 | 1-9/16 | 2-1/2 | 3-3/8 |
| | 1/4 | 0.24 | x 6.4 | 47 | 165.7 | 3/4 | 1-5/16 | 1-15/16 | 3-1/16 | NR |
| | 3/16 | 0.18 | x 4.8 | 36.2 | 215.1 | 1 | 1-9/16 | 2-3/16 | 4 | NR |
| 7 x 7 | 1/2 | 0.46 | 178 x 178 x 12.7 | 88.6 | 87.9 | 7/16 | 11/16 | 1 | 1-5/8 | 2-1/4 |
| | 3/8 | 0.35 | x 9.5 | 68.7 | 113.4 | 1/2 | 13/16 | 1-1/4 | 2-1/8 | 2-15/16 |
| | 5/16 | 0.30 | x 7.9 | 58.1 | 134.0 | 5/8 | 1-1/16 | 1-9/16 | 2-1/2 | 3-3/8 |
| | 1/4 | 0.24 | x 6.4 | 47.2 | 165.0 | 3/4 | 1-5/16 | 1-15/16 | 3-1/16 | NR |
| | 3/16 | 0.18 | x 4.8 | 36 | 216.3 | 1 | 1-9/16 | 2-3/16 | 4 | NR |

Note: A/P Ratio based on Design Formula

X827**Structural Steel Square Tube Columns
CAFCO BLAZE-SHIELD II, HP**

| ASTM Desig. | Wall Thk | A/P | Metric Desig. | M/D | Hp/A | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour | 4-Hour |
|-------------|----------|------|------------------|------|-------|--------|------------|---------|---------|---------|
| 6 x 6 | 1/2 | 0.46 | 152 x 152 x 12.7 | 86.6 | 89.9 | 7/16 | 11/16 | 1 | 1-5/8 | 2-1/4 |
| | 3/8 | 0.35 | x 9.5 | 67.6 | 115.2 | 1/2 | 13/16 | 1-1/4 | 2-1/8 | 2-15/16 |
| | 5/16 | 0.30 | x 7.9 | 57.4 | 135.7 | 5/8 | 1-1/16 | 1-9/16 | 2-1/2 | 3-3/8 |
| | 1/4 | 0.24 | x 6.4 | 46 | 169.3 | 3/4 | 1-5/16 | 1-15/16 | 3-1/16 | NR |
| | 3/16 | 0.18 | x 4.8 | 35.7 | 218.2 | 1 | 1-9/16 | 2-3/16 | 4 | NR |
| 5 x 5 | 1/2 | 0.45 | 127 x 127 x 12.7 | 83.9 | 92.8 | 7/16 | 3/4 | 1-1/16 | 1-11/16 | 2-1/4 |
| | 3/8 | 0.35 | x 9.5 | 66 | 118.0 | 1/2 | 13/16 | 1-1/4 | 2-1/8 | 2-15/16 |
| | 5/16 | 0.29 | x 7.9 | 56.3 | 138.3 | 5/8 | 1-1/8 | 1-9/16 | 2-9/16 | 3-1/2 |
| | 1/4 | 0.24 | x 6.4 | 46.1 | 168.9 | 3/4 | 1-5/16 | 1-15/16 | 3-1/16 | NR |
| | 3/16 | 0.18 | x 4.8 | 35.3 | 220.6 | 1 | 1-9/16 | 2-3/16 | 4 | NR |
| 4 x 4 | 1/2 | 0.44 | 102 x 102 x 12.7 | 79.8 | 97.6 | 7/16 | 3/4 | 1-1/16 | 1-11/16 | 2-5/16 |
| | 3/8 | 0.34 | x 9.5 | 63.7 | 122.3 | 9/16 | 13/16 | 1-1/4 | 2-3/16 | 3 |
| | 5/16 | 0.29 | x 7.9 | 54.7 | 142.4 | 5/8 | 1-1/8 | 1-9/16 | 2-9/16 | 3-1/2 |
| | 1/4 | 0.23 | x 6.4 | 45 | 173.1 | 13/16 | 1-3/8 | 2 | 3-3/16 | NR |
| | 3/16 | 0.18 | x 4.8 | 35 | 222.5 | 1 | 1-9/16 | 2-3/16 | 4 | NR |

Note: A/P Ratio based on Design Formula