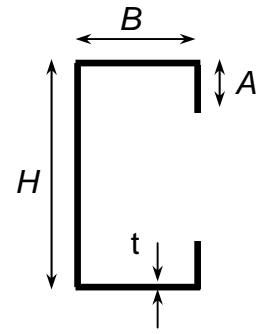


PHYSICAL PROPERTIES

C - SECTION PURLIN



C H x B x A x t

| H (mm) | B (mm) | A (mm) | t (mm) | Weight (kg/m) | Area (mm ²) | I _{xx} (cm ⁴) | I _{yy} (cm ⁴) | Z _{xx} (cm ³) | Z _{yy} (cm ³) |
|--------|--------|--------|--------|---------------|-------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 50 | 40 | 10 | 1.6 | 1.9 | 240 | 11 | 6 | 4 | 2 |
| 50 | 40 | 10 | 2 | 2.4 | 300 | 14 | 7 | 5 | 3 |
| 75 | 40 | 15 | 1.6 | 2.3 | 296 | 28 | 8 | 7 | 3 |
| 75 | 50 | 15 | 2 | 3.2 | 410 | 41 | 16 | 11 | 5 |
| 100 | 45 | 15 | 1.6 | 2.8 | 352 | 58 | 11 | 12 | 4 |
| 100 | 50 | 15 | 1.6 | 2.9 | 368 | 62 | 14 | 12 | 4 |
| 100 | 50 | 15 | 2 | 3.6 | 460 | 78 | 18 | 16 | 5 |
| 110 | 45 | 15 | 1.6 | 2.9 | 368 | 72 | 12 | 13 | 4 |
| 110 | 45 | 15 | 2 | 3.6 | 460 | 90 | 14 | 16 | 5 |
| 110 | 50 | 15 | 2 | 3.8 | 480 | 96 | 18 | 18 | 6 |
| 120 | 50 | 15 | 2 | 3.9 | 500 | 117 | 19 | 20 | 6 |
| 120 | 60 | 15 | 2 | 4.2 | 540 | 132 | 29 | 22 | 7 |
| 140 | 50 | 15 | 2 | 4.2 | 540 | 167 | 20 | 24 | 6 |
| 140 | 60 | 15 | 2 | 4.6 | 580 | 187 | 30 | 27 | 7 |
| 150 | 50 | 20 | 2 | 4.6 | 580 | 203 | 23 | 27 | 7 |
| 150 | 60 | 20 | 2 | 4.9 | 620 | 225 | 34 | 30 | 8 |
| 160 | 60 | 20 | 2 | 5.0 | 640 | 261 | 35 | 33 | 9 |
| 160 | 70 | 20 | 2 | 5.3 | 680 | 287 | 50 | 36 | 11 |
| 180 | 60 | 20 | 2 | 5.3 | 680 | 343 | 36 | 38 | 9 |
| 180 | 70 | 20 | 2 | 5.7 | 720 | 375 | 52 | 42 | 11 |
| 200 | 70 | 20 | 2 | 6.0 | 760 | 478 | 54 | 48 | 11 |

| | | | | | | | | | |
|-----|-----|----|-----|------|------|------|-----|-----|----|
| 200 | 80 | 20 | 2.5 | 7.9 | 1000 | 648 | 92 | 65 | 16 |
| 200 | 80 | 20 | 2.8 | 8.8 | 1120 | 726 | 103 | 73 | 18 |
| 200 | 80 | 20 | 3 | 9.4 | 1200 | 778 | 110 | 78 | 20 |
| 200 | 90 | 20 | 3 | 9.9 | 1260 | 838 | 145 | 84 | 23 |
| 220 | 70 | 20 | 2.5 | 7.9 | 1000 | 746 | 69 | 68 | 14 |
| 220 | 80 | 20 | 2.5 | 8.2 | 1050 | 806 | 94 | 73 | 17 |
| 220 | 70 | 20 | 2.8 | 8.8 | 1120 | 835 | 77 | 76 | 15 |
| 220 | 80 | 20 | 2.8 | 9.2 | 1176 | 903 | 106 | 82 | 19 |
| 220 | 70 | 20 | 3 | 9.4 | 1200 | 895 | 83 | 81 | 16 |
| 220 | 80 | 20 | 3 | 9.9 | 1260 | 967 | 113 | 88 | 20 |
| 220 | 90 | 20 | 3 | 10.4 | 1320 | 1040 | 150 | 95 | 24 |
| 220 | 100 | 20 | 3 | 10.8 | 1380 | 1113 | 192 | 101 | 28 |
| 250 | 70 | 20 | 2.5 | 8.4 | 1075 | 1005 | 72 | 80 | 14 |
| 250 | 80 | 20 | 2.5 | 8.8 | 1125 | 1083 | 98 | 87 | 17 |
| 250 | 70 | 20 | 2.8 | 9.5 | 1204 | 1126 | 80 | 90 | 15 |
| 250 | 80 | 20 | 2.8 | 9.9 | 1260 | 1213 | 110 | 97 | 19 |
| 250 | 70 | 20 | 3 | 10.1 | 1290 | 1206 | 86 | 96 | 17 |
| 250 | 80 | 20 | 3 | 10.6 | 1350 | 1300 | 118 | 104 | 20 |
| 250 | 100 | 20 | 3 | 11.5 | 1470 | 1487 | 200 | 119 | 28 |
| 300 | 70 | 20 | 2.5 | 9.4 | 1200 | 1546 | 75 | 103 | 14 |
| 300 | 80 | 20 | 2.5 | 9.8 | 1250 | 1659 | 103 | 111 | 17 |
| 300 | 70 | 20 | 2.8 | 10.6 | 1344 | 1732 | 84 | 115 | 16 |
| 300 | 80 | 20 | 2.8 | 11.0 | 1400 | 1858 | 116 | 124 | 19 |
| 300 | 70 | 20 | 3 | 11.3 | 1440 | 1856 | 90 | 124 | 17 |
| 300 | 80 | 20 | 3 | 11.8 | 1500 | 1991 | 124 | 133 | 20 |
| 300 | 90 | 20 | 3 | 12.2 | 1560 | 2126 | 164 | 142 | 24 |
| 300 | 100 | 20 | 3 | 12.7 | 1620 | 2261 | 211 | 151 | 29 |
| 300 | 110 | 20 | 3 | 13.2 | 1680 | 2396 | 266 | 160 | 33 |
| 300 | 120 | 20 | 3 | 13.7 | 1740 | 2531 | 328 | 169 | 38 |

STANDARD PURLIN SELECTION

C - SECTION

Slope 10 to 14 Degree

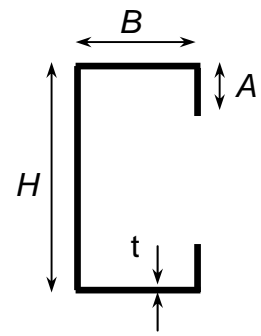
Yield Stress of Material = 2400 kg/cm²

Roof = G.I. Sheets (Dead load = 20 kg/m²)

Purlin Spacing = 1.6m

Young's Modulus = 200 GPa

Deflection Limit = Span/150 (IS 800 – 2007)



C H x B x A x t

| Span (m) | No of Sag rods | Wind Load = 100 kg/m ² | Wind Load = 150 kg/m ² |
|----------|----------------|-----------------------------------|-----------------------------------|
| 3 | - | C 100 x 45 x 15 x 1.6 | C 100 x 50 x 15 x 2 |
| 3.5 | - | C 100 x 50 x 15 x 2 | C 120 x 60 x 15 x 2 |
| 4 | - | C 120 x 50 x 15 x 2 | C 140 x 60 x 15 x 2 |
| 4.5 | 1 | C 140 x 60 x 15 x 2 | C 160 x 70 x 20 x 2 |
| 5 | 1 | C 160 x 60 x 20 x 2 | C 200 x 70 x 20 x 2 |
| 5.5 | 1 | C 180 x 60 x 20 x 2 | C 200 x 70 x 20 x 2.5 |
| 6 | 1 | C 200 x 70 x 20 x 2 | C 200 x 80 x 20 x 2.5 |
| 6.5 | 2 | C 200 x 80 x 20 x 2.5 | C 220 x 80 x 20 x 2.5 |
| 7 | 2 | C 200 x 80 x 20 x 2.5 | C 220 x 80 x 20 x 3 |
| 7.5 | 2 | C 200 x 80 x 20 x 2.8 | C 250 x 80 x 20 x 2.8 |
| 8 | 2 | C 200 x 80 x 20 x 3 | C 300 x 80 x 20 x 2.5 |
| 8.5 | 2 | C 220 x 80 x 20 x 3 | C 300 x 70 x 20 x 3 |
| 9 | 3 | C 220 x 100 x 20 x 3 | C 300 x 90 x 20 x 3 |
| 9.5 | 3 | C 250 x 100 x 20 x 3 | C 300 x 110 x 20 x 3 |
| 10 | 3 | C 300 x 80 x 20 x 2.8 | C 300 x 120 x 20 x 3 |

STANDARD PURLIN SELECTION

C - SECTION

Slope 10 to 14 Degree

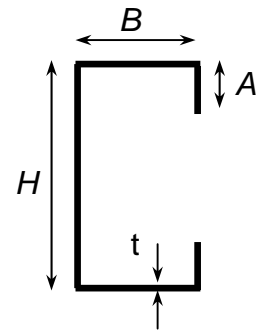
Yield Stress of Material = 3400 kg/cm²

Roof = G.I. Sheets (Dead load = 20 kg/m²)

Purlin Spacing = 1.6m

Young's Modulus = 200 GPa

Deflection Limit = Span/150 (IS 800 – 2007)

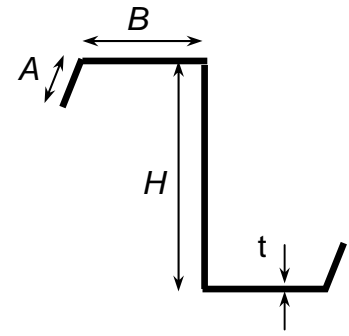


C H x B x A x t

| Span (m) | No of Sag rods | Wind Load = 100 kg/m ² | Wind Load = 150 kg/m ² |
|----------|----------------|-----------------------------------|-----------------------------------|
| 3 | - | C 100 x 45 x 15 x 1.6 | C 100 x 45 x 15 x 1.6 |
| 3.5 | - | C 100 x 50 x 15 x 1.6 | C 100 x 50 x 15 x 2 |
| 4 | - | C 100 x 50 x 15 x 2 | C 120 x 50 x 15 x 2 |
| 4.5 | 1 | C 120 x 50 x 15 x 2 | C 140 x 50 x 15 x 2 |
| 5 | 1 | C 140 x 50 x 15 x 2 | C 160 x 60 x 20 x 2 |
| 5.5 | 1 | C 150 x 60 x 20 x 2 | C 180 x 60 x 20 x 2 |
| 6 | 1 | C 160 x 70 x 20 x 2 | C 200 x 70 x 20 x 2 |
| 6.5 | 2 | C 180 x 60 x 20 x 2 | C 200 x 80 x 20 x 2.5 |
| 7 | 2 | C 200 x 70 x 20 x 2 | C 200 x 80 x 20 x 2.5 |
| 7.5 | 2 | C 200 x 80 x 20 x 2.5 | C 200 x 80 x 20 x 3 |
| 8 | 2 | C 200 x 80 x 20 x 2.5 | C 220 x 80 x 20 x 3 |
| 8.5 | 2 | C 200 x 80 x 20 x 3 | C 250 x 70 x 20 x 2.8 |
| 9 | 3 | C 220 x 80 x 20 x 3 | C 250 x 80 x 20 x 3 |
| 9.5 | 3 | C 200 x 80 x 20 x 3 | C 300 x 80 x 20 x 2.5 |
| 10 | 3 | C 220 x 80 x 20 x 3 | C 300 x 80 x 20 x 2.8 |

PHYSICAL PROPERTIES

Z - SECTION PURLIN



Z H x B x A x t

| H (mm) | B (mm) | A (mm) | t (mm) | Weight (kg/m) | Area (mm ²) | I _{xx} (cm ⁴) | I _{yy} (cm ⁴) | Z _{xx} (cm ³) | Z _{yy} (cm ³) |
|--------|--------|--------|--------|---------------|-------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 50 | 40 | 10 | 1.6 | 1.9 | 240 | 11 | 7 | 5 | 2 |
| 50 | 40 | 10 | 2 | 2.4 | 300 | 14 | 9 | 6 | 2 |
| 75 | 40 | 15 | 1.6 | 2.3 | 296 | 29 | 7 | 8 | 2 |
| 75 | 50 | 15 | 2 | 3.2 | 410 | 41 | 17 | 11 | 3 |
| 100 | 45 | 15 | 1.6 | 2.8 | 352 | 59 | 10 | 12 | 2 |
| 100 | 50 | 15 | 1.6 | 2.9 | 368 | 63 | 14 | 13 | 3 |
| 100 | 50 | 15 | 2 | 3.6 | 460 | 79 | 17 | 16 | 3 |
| 110 | 45 | 15 | 1.6 | 2.9 | 368 | 74 | 10 | 14 | 2 |
| 110 | 45 | 15 | 2 | 3.6 | 460 | 92 | 12 | 17 | 3 |
| 110 | 50 | 15 | 2 | 3.8 | 480 | 98 | 17 | 18 | 3 |
| 120 | 50 | 15 | 2 | 3.9 | 500 | 120 | 17 | 20 | 3 |
| 120 | 60 | 15 | 2 | 4.2 | 540 | 134 | 30 | 23 | 5 |
| 140 | 50 | 15 | 2 | 4.2 | 540 | 171 | 17 | 25 | 3 |
| 140 | 60 | 15 | 2 | 4.6 | 580 | 191 | 30 | 28 | 5 |
| 150 | 50 | 20 | 2 | 4.6 | 580 | 207 | 17 | 28 | 3 |
| 150 | 60 | 20 | 2 | 4.9 | 620 | 230 | 30 | 31 | 5 |
| 160 | 60 | 20 | 2 | 5.0 | 640 | 267 | 30 | 34 | 5 |
| 160 | 70 | 20 | 2 | 5.3 | 680 | 293 | 47 | 37 | 7 |
| 180 | 60 | 20 | 2 | 5.3 | 680 | 350 | 30 | 39 | 5 |
| 180 | 70 | 20 | 2 | 5.7 | 720 | 383 | 47 | 43 | 7 |
| 200 | 70 | 20 | 2 | 6.0 | 760 | 488 | 47 | 50 | 7 |

| | | | | | | | | | |
|-----|-----|----|-----|------|------|------|-----|-----|----|
| 200 | 80 | 20 | 2.5 | 7.9 | 1000 | 661 | 87 | 67 | 11 |
| 200 | 80 | 20 | 2.8 | 8.8 | 1120 | 740 | 98 | 75 | 12 |
| 200 | 80 | 20 | 3 | 9.4 | 1200 | 793 | 105 | 81 | 13 |
| 200 | 90 | 20 | 3 | 9.9 | 1260 | 854 | 149 | 87 | 17 |
| 220 | 70 | 20 | 2.5 | 7.9 | 1000 | 761 | 59 | 70 | 8 |
| 220 | 80 | 20 | 2.5 | 8.2 | 1050 | 822 | 87 | 76 | 11 |
| 220 | 70 | 20 | 2.8 | 8.8 | 1120 | 852 | 66 | 79 | 10 |
| 220 | 80 | 20 | 2.8 | 9.2 | 1176 | 921 | 98 | 85 | 12 |
| 220 | 70 | 20 | 3 | 9.4 | 1200 | 913 | 70 | 84 | 10 |
| 220 | 80 | 20 | 3 | 9.9 | 1260 | 987 | 105 | 91 | 13 |
| 220 | 90 | 20 | 3 | 10.4 | 1320 | 1061 | 149 | 98 | 17 |
| 220 | 100 | 20 | 3 | 10.8 | 1380 | 1135 | 205 | 105 | 21 |
| 250 | 70 | 20 | 2.5 | 8.4 | 1075 | 1025 | 59 | 83 | 8 |
| 250 | 80 | 20 | 2.5 | 8.8 | 1125 | 1105 | 87 | 90 | 11 |
| 250 | 70 | 20 | 2.8 | 9.5 | 1204 | 1148 | 66 | 93 | 10 |
| 250 | 80 | 20 | 2.8 | 9.9 | 1260 | 1237 | 98 | 100 | 12 |
| 250 | 70 | 20 | 3 | 10.1 | 1290 | 1230 | 70 | 100 | 10 |
| 250 | 80 | 20 | 3 | 10.6 | 1350 | 1326 | 105 | 108 | 13 |
| 250 | 100 | 20 | 3 | 11.5 | 1470 | 1517 | 205 | 123 | 21 |
| 300 | 70 | 20 | 2.5 | 9.4 | 1200 | 1577 | 59 | 107 | 8 |
| 300 | 80 | 20 | 2.5 | 9.8 | 1250 | 1692 | 87 | 114 | 11 |
| 300 | 70 | 20 | 2.8 | 10.6 | 1344 | 1767 | 66 | 120 | 10 |
| 300 | 80 | 20 | 2.8 | 11.0 | 1400 | 1895 | 98 | 128 | 12 |
| 300 | 70 | 20 | 3 | 11.3 | 1440 | 1893 | 70 | 128 | 10 |
| 300 | 80 | 20 | 3 | 11.8 | 1500 | 2030 | 105 | 137 | 13 |
| 300 | 90 | 20 | 3 | 12.2 | 1560 | 2168 | 149 | 147 | 17 |
| 300 | 100 | 20 | 3 | 12.7 | 1620 | 2306 | 205 | 156 | 21 |
| 300 | 110 | 20 | 3 | 13.2 | 1680 | 2444 | 273 | 165 | 25 |
| 300 | 120 | 20 | 3 | 13.7 | 1740 | 2581 | 354 | 175 | 30 |

STANDARD PURLIN SELECTION

Z - SECTION

Slope 10 to 14 Degree

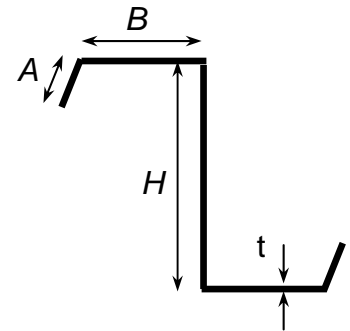
Yield Stress of Material = 2400 kg/cm²

Roof = G.I. Sheets (Dead load = 20 kg/m²)

Purlin Spacing = 1.6m

Young's Modulus = 200 GPa

Deflection Limit = Span/150 (IS 800 – 2007)



Z H x B x A x t

| Span (m) | No of Sag rods | Wind Load = 100 kg/m ² | Wind Load = 150 kg/m ² |
|----------|----------------|-----------------------------------|-----------------------------------|
| 3 | - | Z 100 x 45 x 15 x 1.6 | Z 100 x 50 x 15 x 2 |
| 3.5 | - | Z 100 x 50 x 15 x 2 | Z 120 x 60 x 15 x 2 |
| 4 | - | Z 120 x 50 x 15 x 2 | Z 140 x 60 x 15 x 2 |
| 4.5 | 1 | Z 140 x 60 x 15 x 2 | Z 160 x 70 x 20 x 2 |
| 5 | 1 | Z 160 x 60 x 20 x 2 | Z 200 x 70 x 20 x 2 |
| 5.5 | 1 | Z 180 x 60 x 20 x 2 | Z 200 x 70 x 20 x 2.5 |
| 6 | 1 | Z 200 x 70 x 20 x 2 | Z 200 x 80 x 20 x 2.5 |
| 6.5 | 2 | Z 200 x 80 x 20 x 2.5 | Z 220 x 80 x 20 x 2.5 |
| 7 | 2 | Z 200 x 80 x 20 x 2.5 | Z 220 x 80 x 20 x 3 |
| 7.5 | 2 | Z 200 x 80 x 20 x 2.8 | Z 250 x 80 x 20 x 2.8 |
| 8 | 2 | Z 200 x 80 x 20 x 3 | Z 300 x 80 x 20 x 2.5 |
| 8.5 | 2 | Z 220 x 80 x 20 x 3 | Z 300 x 70 x 20 x 3 |
| 9 | 3 | Z 220 x 100 x 20 x 3 | Z 300 x 90 x 20 x 3 |
| 9.5 | 3 | Z 250 x 100 x 20 x 3 | Z 300 x 110 x 20 x 3 |
| 10 | 3 | Z 300 x 80 x 20 x 2.8 | Z 300 x 120 x 20 x 3 |

STANDARD PURLIN SELECTION

Z - SECTION

Slope 10 to 14 Degree

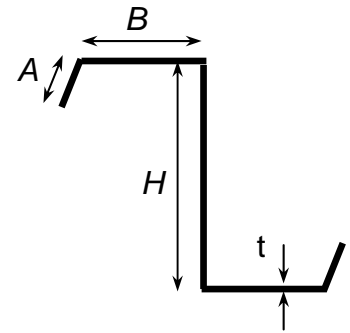
Yield Stress of Material = 3400 kg/cm²

Roof = G.I. Sheets (Dead load = 20 kg/m²)

Purlin Spacing = 1.6m

Young's Modulus = 200 GPa

Deflection Limit = Span/150 (IS 800 – 2007)



Z H x B x A x t

| Span (m) | No of Sag rods | Wind Load = 100 kg/m ² | Wind Load = 150 kg/m ² |
|----------|----------------|-----------------------------------|-----------------------------------|
| 3 | - | C 100 x 45 x 15 x 1.6 | Z 100 x 45 x 15 x 1.6 |
| 3.5 | - | C 100 x 50 x 15 x 1.6 | Z 100 x 50 x 15 x 2 |
| 4 | - | Z 100 x 50 x 15 x 2 | Z 120 x 50 x 15 x 2 |
| 4.5 | 1 | Z 120 x 50 x 15 x 2 | Z 140 x 50 x 15 x 2 |
| 5 | 1 | Z 140 x 50 x 15 x 2 | Z 160 x 60 x 20 x 2 |
| 5.5 | 1 | Z 150 x 60 x 20 x 2 | Z 180 x 60 x 20 x 2 |
| 6 | 1 | Z 160 x 70 x 20 x 2 | Z 200 x 70 x 20 x 2 |
| 6.5 | 2 | Z 180 x 60 x 20 x 2 | Z 200 x 80 x 20 x 2.5 |
| 7 | 2 | Z 200 x 70 x 20 x 2 | Z 200 x 80 x 20 x 2.5 |
| 7.5 | 2 | Z 200 x 80 x 20 x 2.5 | Z 200 x 80 x 20 x 3 |
| 8 | 2 | Z 200 x 80 x 20 x 2.5 | Z 220 x 80 x 20 x 3 |
| 8.5 | 2 | Z 200 x 80 x 20 x 3 | Z 250 x 70 x 20 x 2.8 |
| 9 | 3 | Z 220 x 80 x 20 x 3 | Z 250 x 80 x 20 x 3 |
| 9.5 | 3 | Z 200 x 80 x 20 x 3 | Z 300 x 80 x 20 x 2.5 |
| 10 | 3 | Z 220 x 80 x 20 x 3 | Z 300 x 80 x 20 x 2.8 |