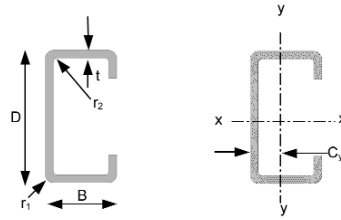
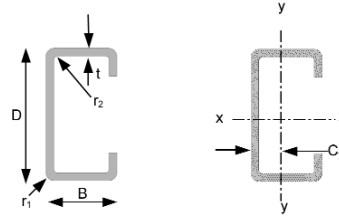


Lipped Channels



| Designation | | Thick-ness | Inside Outside Radius | | Area of Section | Centre of Gravity | Second Moment of Area | | Radius of Gyration | | Elastic Modulus | | Plastic Modulus | | Buckling Constant | Torsional Index | Warp Constant | Torsion Constant |
|-------------|----------------|------------|-----------------------|----------------|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----------------|-----------------------------------|------------------|
| Size | Mass per Metre | t | r ₁ | r ₂ | A | C _v | I _x | I _y | r _x | r _y | Z _x | Z _y | S _x | S _y | u | x | H | J |
| DxBxC | kg/m | mm | mm | mm | cm ² | cm | cm ⁴ | cm ⁴ | cm | cm | cm ³ | cm ³ | cm ³ | cm ³ | | | dm ⁴ x10 ⁻³ | cm ⁴ |
| 60x30x10 | 1.62 | 1.6 | 4.0 | 2.4 | 2.05 | 1.06 | 11.4 | 2.50 | 2.36 | 1.10 | 3.81 | 1.29 | 4.48 | 2.12 | 0.808 | 35.5 | 0.0219 | 0.0182 |
| | 2.25 | 2.3 | 5.8 | 3.5 | 2.83 | 1.05 | 15.2 | 3.20 | 2.32 | 1.06 | 5.06 | 1.64 | 6.05 | 2.57 | 0.801 | 24.5 | 0.0281 | 0.0530 |
| 75x45x15 | 2.31 | 1.6 | 4.0 | 2.4 | 2.93 | 1.72 | 26.8 | 8.59 | 3.03 | 1.71 | 7.15 | 3.09 | 8.27 | 4.62 | 0.776 | 46.7 | 0.129 | 0.0258 |
| | 3.24 | 2.3 | 5.8 | 3.5 | 4.09 | 1.71 | 36.5 | 11.5 | 2.99 | 1.67 | 9.73 | 4.11 | 11.4 | 6.31 | 0.772 | 32.2 | 0.171 | 0.0754 |
| | 4.12 | 3.0 | 7.5 | 4.5 | 5.18 | 1.70 | 44.9 | 13.8 | 2.94 | 1.63 | 12.0 | 4.94 | 14.2 | 7.79 | 0.769 | 24.5 | 0.206 | 0.165 |
| 100x50x20 | 2.88 | 1.6 | 4.0 | 2.4 | 3.65 | 1.86 | 57.9 | 13.8 | 3.98 | 1.95 | 11.6 | 4.41 | 13.5 | 6.73 | 0.788 | 62.9 | 0.373 | 0.032 |
| | 4.06 | 2.3 | 5.8 | 3.5 | 5.13 | 1.86 | 79.6 | 18.7 | 3.94 | 1.91 | 15.9 | 5.95 | 18.7 | 9.28 | 0.785 | 43.5 | 0.503 | 0.094 |
| | 5.18 | 3.0 | 7.5 | 4.5 | 6.53 | 1.85 | 99.1 | 22.9 | 3.90 | 1.87 | 19.8 | 7.27 | 23.6 | 11.6 | 0.781 | 33.1 | 0.616 | 0.205 |
| 125x50x20 | 4.51 | 2.3 | 5.8 | 3.5 | 5.70 | 1.68 | 135 | 20.3 | 4.86 | 1.89 | 21.5 | 6.11 | 25.5 | 8.91 | 0.819 | 51.6 | 0.767 | 0.104 |
| | 5.77 | 3.0 | 7.5 | 4.5 | 7.28 | 1.68 | 169 | 24.8 | 4.81 | 1.85 | 27.0 | 7.47 | 32.2 | 11.2 | 0.814 | 39.4 | 0.942 | 0.228 |
| | 8.31 | 4.5 | 11.3 | 6.8 | 10.4 | 1.66 | 231 | 32.3 | 4.71 | 1.76 | 36.9 | 9.7 | 45.0 | 15.4 | 0.804 | 26.1 | 1.24 | 0.750 |
| 150x65x20 | 5.50 | 2.3 | 5.8 | 3.5 | 6.97 | 2.11 | 245 | 40.5 | 5.93 | 2.41 | 32.7 | 9.23 | 38.1 | 13.8 | 0.840 | 59.6 | 2.03 | 0.126 |
| | 7.07 | 3.0 | 7.5 | 4.5 | 8.93 | 2.10 | 310 | 50.2 | 5.89 | 2.37 | 41.3 | 11.4 | 48.4 | 17.4 | 0.836 | 45.6 | 2.53 | 0.277 |
| | 10.25 | 4.5 | 11.3 | 6.8 | 12.9 | 2.09 | 432 | 67.1 | 5.78 | 2.28 | 57.5 | 15.2 | 68.5 | 24.2 | 0.828 | 30.3 | 3.41 | 0.917 |
| 175x75x20 | 6.31 | 2.3 | 5.8 | 3.5 | 8.00 | 2.34 | 386 | 60.3 | 6.95 | 2.75 | 44.1 | 11.7 | 51.1 | 17.8 | 0.853 | 68.0 | 3.92 | 0.144 |
| | 8.13 | 3.0 | 7.5 | 4.5 | 10.3 | 2.33 | 489 | 75.1 | 6.90 | 2.70 | 55.9 | 14.5 | 65.2 | 22.5 | 0.850 | 52.0 | 4.90 | 0.318 |
| | 11.84 | 4.5 | 11.3 | 6.8 | 14.9 | 2.31 | 689 | 102 | 6.80 | 2.61 | 78.7 | 19.6 | 93.0 | 31.6 | 0.842 | 34.6 | 6.71 | 1.05 |
| 200x75x20 | 6.76 | 2.3 | 5.8 | 3.5 | 8.58 | 2.19 | 527 | 63.0 | 7.84 | 2.71 | 52.7 | 11.9 | 61.5 | 18.0 | 0.860 | 76.8 | 5.22 | 0.154 |
| | 8.71 | 3.0 | 7.5 | 4.5 | 11.0 | 2.18 | 669 | 78.5 | 7.79 | 2.67 | 66.9 | 14.8 | 78.5 | 22.9 | 0.856 | 58.8 | 6.53 | 0.340 |
| | 12.73 | 4.5 | 11.3 | 6.8 | 16.0 | 2.17 | 945 | 106 | 7.68 | 2.57 | 94.5 | 19.9 | 112 | 32.6 | 0.847 | 39.2 | 8.98 | 1.13 |
| 250x75x25 | 7.85 | 2.3 | 5.8 | 3.5 | 10 | 2.07 | 914 | 74.0 | 9.58 | 2.73 | 73.1 | 13.6 | 86.7 | 20.1 | 0.853 | 96.9 | 9.73 | 0.179 |
| | 10.13 | 3.0 | 7.5 | 4.5 | 12.8 | 2.07 | 1165 | 92.5 | 9.53 | 2.69 | 93.2 | 17.0 | 111 | 25.8 | 0.850 | 74.3 | 12.2 | 0.394 |
| | 14.85 | 4.5 | 11.3 | 6.8 | 18.7 | 2.06 | 1659 | 126 | 9.41 | 2.60 | 133 | 23.2 | 160 | 37.4 | 0.842 | 49.5 | 16.9 | 1.31 |

Lipped Channels



High-tensile galvanised C-Purlins

Purlin selection tables for roofing application

The following purlin selection tables provide an easy reference for selection of appropriate purlin size in accordance with the bay width or column spacing of the building.

These tables can be generally used in Singapore and Malaysia. However, for optimum designs where specific roofing and insulation loads are to be used or for any other structure or for application outside Singapore and Malaysia, contact REGENCY STEEL ASIA PTE LTD for free technical advice.

Table No. 2 - Purlin selection table

| Roof decking (0.61 mm TCT at 6.55kg/m ² distributed load) on C-Purlin | | | | |
|--|----------------|----------------|----------------|----------------|
| Span | Purlin spacing | Purlin spacing | Purlin spacing | Purlin spacing |
| mm | 1200 mm c/c | 1500 mm c/c | 1800 mm c/c | 2100 mm c/c |
| 5000 | SC100-16 | SC100-20 | SC150-16 | SC150-16 |
| 6000 | SC150-16 | SC150-16 | SC150-16 | SC150-20 |
| 7000 | SC150-20 | SC200-16 | SC200-16 | SC200-16 |
| 7500 | SC200-16 | SC200-16 | SC200-20 | SC200-16 |
| 8000 | SC200-16 | SC200-16 | SC200-16 | SC200-16 |
| 9000 | SC200-16 | SC200-16 | SC200-20 | SC200-25 |
| 10000 | SC200-20 | SC200-25 | -- | -- |
| 11000 | SC200-25 | -- | -- | -- |

Table No. 3 - Purlin selection table

| Roof decking (0.61 mm TCT at 6.55kg/m ² distributed load) on 50mm thk insulation wool (32kg/m ³) on 1 layer Aluminium Foil on 1 layer Chicken mesh on C-Purlin | | | | |
|---|----------------|----------------|----------------|----------------|
| Span | Purlin spacing | Purlin spacing | Purlin spacing | Purlin spacing |
| mm | 1200 mm c/c | 1500 mm c/c | 1800 mm c/c | 2100 mm c/c |
| 5000 | SC100-20 | SC100-20 | SC150-16 | SC150-16 |
| 6000 | SC150-16 | SC150-16 | SC150-16 | SC150-20 |
| 7000 | SC150-20 | SC200-16 | SC200-16 | SC200-16 |
| 7500 | SC200-16 | SC200-16 | SC200-20 | SC200-16 |
| 8000 | SC200-16 | SC200-16 | SC200-16 | SC200-20 |
| 9000 | SC200-16 | SC200-20 | SC200-25 | SC200-25 |
| 10000 | SC200-20 | SC200-25 | -- | -- |