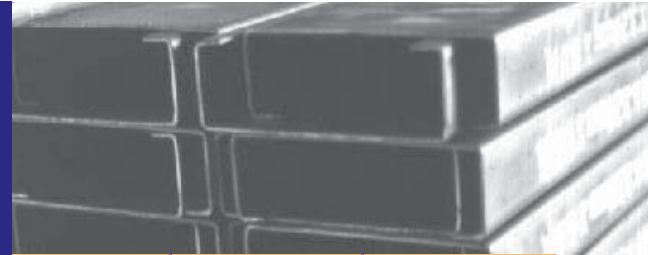
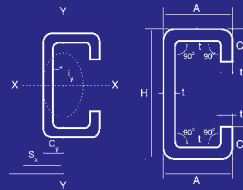


# LIP CHANNEL

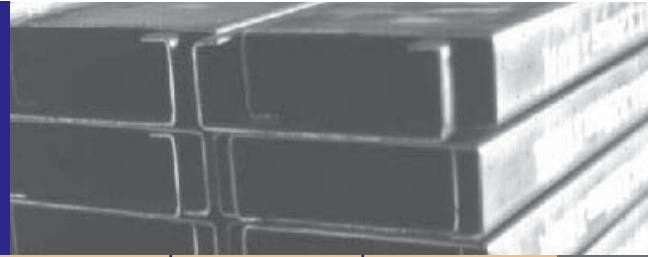
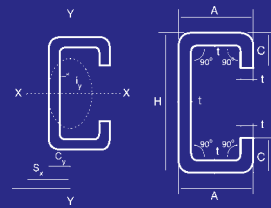
SIZES AND PROPERTIES  
TIS/JIS STANDARDS



| Dimensions<br>(mm.) |     | Sectional<br>Area<br>(cm <sup>2</sup> .) | Weight<br>(kg./m.) | Center of<br>Gravity<br>(cm.) |                | Secondary<br>Moment of Area<br>(cm <sup>4</sup> .) |                | Radius of<br>Gyration of Area<br>(cm.) |                | Modulus of<br>Section<br>(cm <sup>3</sup> .) |                | Center of Shear<br>(cm <sup>2</sup> .) |                |
|---------------------|-----|------------------------------------------|--------------------|-------------------------------|----------------|----------------------------------------------------|----------------|----------------------------------------|----------------|----------------------------------------------|----------------|----------------------------------------|----------------|
| HxAxC               | t   |                                          |                    | C <sub>x</sub>                | C <sub>y</sub> | I <sub>x</sub>                                     | I <sub>y</sub> | i <sub>x</sub>                         | i <sub>y</sub> | Z <sub>x</sub>                               | Z <sub>y</sub> | S <sub>x</sub>                         | S <sub>y</sub> |
| 60X30X10            | 1.6 | 2.072                                    | 1.63               | 0                             | 1.06           | 11.6                                               | 2.56           | 2.37                                   | 1.11           | 3.88                                         | 1.32           | 2.5                                    | 0              |
|                     | 2.0 | 2.537                                    | 1.99               | 0                             | 1.06           | 14.0                                               | 3.01           | 2.35                                   | 1.09           | 4.65                                         | 1.55           | 2.5                                    | 0              |
|                     | 2.3 | 2.872                                    | 2.25               | 0                             | 1.06           | 15.6                                               | 3.32           | 2.33                                   | 1.07           | 5.20                                         | 1.71           | 2.5                                    | 0              |
| 70X40X25            | 1.6 | 3.032                                    | 2.38               | 0                             | 1.80           | 22.0                                               | 8.00           | 2.69                                   | 1.62           | 6.29                                         | 3.64           | 4.4                                    | 0              |
| 75X35X15            | 2.3 | 3.677                                    | 2.89               | 0                             | 1.29           | 31.0                                               | 6.58           | 2.91                                   | 1.34           | 8.28                                         | 2.98           | 3.1                                    | 0              |
| 75X45X15            | 1.6 | 2.952                                    | 2.32               | 0                             | 1.72           | 27.1                                               | 8.71           | 3.03                                   | 1.72           | 7.24                                         | 3.13           | 4.1                                    | 0              |
|                     | 2.0 | 3.637                                    | 2.86               | 0                             | 1.72           | 33.0                                               | 10.50          | 3.01                                   | 1.70           | 8.79                                         | 3.76           | 4.0                                    | 0              |
|                     | 2.3 | 4.137                                    | 3.25               | 0                             | 1.72           | 37.1                                               | 11.8           | 3.00                                   | 1.69           | 9.90                                         | 4.24           | 4.0                                    | 0              |
| 90X45X20            | 1.6 | 3.352                                    | 2.63               | 0                             | 1.73           | 42.6                                               | 10.5           | 3.56                                   | 1.77           | 9.46                                         | 5.80           | 4.2                                    | 0              |
|                     | 2.3 | 4.712                                    | 3.70               | 0                             | 1.73           | 58.6                                               | 14.2           | 3.53                                   | 1.74           | 13.0                                         | 5.14           | 4.1                                    | 0              |
|                     | 3.2 | 6.367                                    | 5.00               | 0                             | 1.72           | 76.9                                               | 18.3           | 3.48                                   | 1.69           | 17.1                                         | 6.57           | 4.1                                    | 0              |
| 100X50X20           | 1.6 | 3.672                                    | 2.88               | 0                             | 1.87           | 58.4                                               | 14.0           | 3.99                                   | 1.95           | 11.7                                         | 4.47           | 4.5                                    | 0              |

# LIP CHANNEL

SIZES AND PROPERTIES  
TIS/JIS STANDARDS



| Dimensions<br>(mm.) |     | Sectional<br>Area<br>(cm <sup>2</sup> .) | Weight<br>(kg./m.) | Center of<br>Gravity<br>(cm.) |                | Secondary<br>Moment of Area<br>(cm <sup>4</sup> .) |                | Radius of<br>Gyration of Area<br>(cm.) |                | Modulus of<br>Section<br>(cm <sup>3</sup> .) |                | Center of Shear<br>(cm <sup>2</sup> .) |                |
|---------------------|-----|------------------------------------------|--------------------|-------------------------------|----------------|----------------------------------------------------|----------------|----------------------------------------|----------------|----------------------------------------------|----------------|----------------------------------------|----------------|
| HxAxC               | t   |                                          |                    | C <sub>x</sub>                | C <sub>y</sub> | I <sub>x</sub>                                     | I <sub>y</sub> | i <sub>x</sub>                         | i <sub>y</sub> | Z <sub>x</sub>                               | Z <sub>y</sub> | S <sub>x</sub>                         | S <sub>y</sub> |
| 100X50X20           | 2.0 | 4.537                                    | 3.56               | 0                             | 1.86           | 71.4                                               | 16.9           | 3.97                                   | 1.93           | 14.3                                         | 5.40           | 4.4                                    | 0              |
|                     | 2.3 | 5.172                                    | 4.06               | 0                             | 1.86           | 80.7                                               | 19.0           | 3.95                                   | 1.92           | 16.1                                         | 6.06           | 4.4                                    | 0              |
|                     | 2.8 | 6.205                                    | 4.87               | 0                             | 1.88           | 99.8                                               | 23.2           | 3.96                                   | 1.91           | 20.0                                         | 7.44           | 4.3                                    | 0              |
|                     | 3.2 | 7.007                                    | 5.50               | 0                             | 1.86           | 107                                                | 24.5           | 3.90                                   | 1.87           | 21.3                                         | 7.81           | 4.4                                    | 0              |
|                     | 4.0 | 8.548                                    | 6.71               | 0                             | 1.86           | 127                                                | 28.7           | 3.85                                   | 1.83           | 25.4                                         | 9.13           | 4.3                                    | 0              |
|                     | 4.5 | 9.469                                    | 7.43               | 0                             | 1.86           | 139                                                | 30.9           | 3.82                                   | 1.81           | 27.7                                         | 9.82           | 4.3                                    | 0              |
| 120X40X20           | 3.2 | 7.007                                    | 5.50               | 0                             | 1.32           | 144                                                | 15.3           | 4.53                                   | 1.48           | 24.0                                         | 5.71           | 3.4                                    | 0              |
| 120X60X20           | 2.3 | 6.092                                    | 4.78               | 0                             | 2.13           | 140                                                | 31.3           | 4.79                                   | 2.27           | 23.3                                         | 8.10           | 5.1                                    | 0              |
|                     | 3.2 | 8.287                                    | 6.51               | 0                             | 2.12           | 186                                                | 40.9           | 4.74                                   | 2.22           | 31.0                                         | 10.5           | 4.9                                    | 0              |
| 120X60X25           | 4.5 | 11.72                                    | 9.20               | 0                             | 2.25           | 252                                                | 58.0           | 4.63                                   | 2.22           | 41.9                                         | 15.5           | 5.3                                    | 0              |
| 125X50X20           | 2.3 | 5.747                                    | 4.51               | 0                             | 1.69           | 137                                                | 20.6           | 4.88                                   | 1.89           | 21.9                                         | 6.22           | 4.1                                    | 0              |
|                     | 3.2 | 7.807                                    | 6.13               | 0                             | 1.68           | 181                                                | 26.6           | 4.82                                   | 1.85           | 29.0                                         | 8.02           | 4.0                                    | 0              |
|                     | 4.0 | 9.548                                    | 7.50               | 0                             | 1.68           | 217                                                | 33.1           | 4.77                                   | 1.81           | 34.7                                         | 9.38           | 4.0                                    | 0              |

|           |     |       |       |   |      |       |       |      |      |      |      |     |   |
|-----------|-----|-------|-------|---|------|-------|-------|------|------|------|------|-----|---|
| 125X50X20 | 4.5 | 10.59 | 8.32  | 0 | 1.68 | 238   | 33.5  | 4.74 | 1.78 | 38.0 | 10   | 4.0 | 0 |
| 150x50X20 | 2.3 | 6.322 | 4.96  | 0 | 1.55 | 210   | 21.9  | 5.77 | 1.86 | 28.0 | 6.33 | 3.8 | 0 |
|           | 3.2 | 8.607 | 6.76  | 0 | 1.54 | 280   | 28.3  | 5.71 | 1.81 | 37.4 | 8.19 | 3.8 | 0 |
|           | 4.5 | 11.72 | 9.20  | 0 | 1.54 | 368   | 35.7  | 5.60 | 1.75 | 49.0 | 10.5 | 3.7 | 0 |
| 150x65x20 | 2.3 | 7.012 | 5.50  | 0 | 2.12 | 248   | 41.1  | 5.94 | 2.42 | 33.0 | 9.37 | 5.2 | 0 |
|           | 3.2 | 9.567 | 7.51  | 0 | 2.11 | 332   | 53.8  | 5.89 | 2.37 | 44.3 | 12.2 | 5.1 | 0 |
|           | 4.0 | 11.75 | 9.22  | 0 | 2.11 | 401   | 63.7  | 5.84 | 2.33 | 53.5 | 14.5 | 5.0 | 0 |
| 150x75X20 | 3.2 | 10.21 | 8.01  | 0 | 2.51 | 366   | 76.4  | 5.99 | 2.74 | 48.9 | 15.3 | 5.1 | 0 |
|           | 4.0 | 12.55 | 9.85  | 0 | 2.51 | 445   | 91.0  | 5.95 | 2.69 | 59.3 | 18.2 | 5.8 | 0 |
|           | 4.5 | 13.97 | 11.00 | 0 | 2.50 | 489   | 99.2  | 5.92 | 2.66 | 65.2 | 19.8 | 6.0 | 0 |
| 150X75X25 | 3.2 | 10.53 | 8.27  | 0 | 2.66 | 375   | 83.6  | 5.97 | 2.82 | 50.0 | 17.3 | 6.4 | 0 |
|           | 4.0 | 12.95 | 10.20 | 0 | 2.65 | 455   | 99.8  | 5.93 | 2.78 | 60.6 | 20.6 | 6.3 | 0 |
|           | 4.5 | 14.42 | 11.30 | 0 | 2.65 | 501   | 109.0 | 5.90 | 2.75 | 66.9 | 22.5 | 6.3 | 0 |
| 200X75X20 | 3.2 | 11.81 | 9.27  | 0 | 2.19 | 716   | 84.1  | 7.79 | 2.67 | 71.6 | 15.8 | 5.4 | 0 |
|           | 4.0 | 14.55 | 11.40 | 0 | 2.19 | 871   | 100   | 7.74 | 2.62 | 87.1 | 18.9 | 5.3 | 0 |
|           | 4.5 | 16.22 | 12.70 | 0 | 2.19 | 963   | 109   | 7.71 | 2.60 | 96.3 | 20.6 | 5.3 | 0 |
| 200X75X25 | 3.2 | 12.13 | 9.52  | 0 | 2.33 | 736   | 92.3  | 7.70 | 2.76 | 73.6 | 17.8 | 5.7 | 0 |
|           | 4.0 | 14.95 | 11.70 | 0 | 2.32 | 895   | 110   | 7.74 | 2.72 | 89.5 | 21.3 | 5.7 | 0 |
|           | 4.5 | 16.67 | 13.10 | 0 | 2.32 | 990   | 121   | 7.61 | 2.69 | 99.0 | 23.3 | 5.6 | 0 |
| 250X75X25 | 4.5 | 18.92 | 14.90 | 0 | 2.07 | 1,690 | 129   | 9.44 | 2.62 | 135  | 23.8 | 5.1 | 0 |