

# PRODUCT RANGE\*

DSP, Durgapur

| Beams (IS 12778) |         | Mass (kg/m)         |
|------------------|---------|---------------------|
| NPB              | 100x55  | 8.10                |
| NPB              | 120x60  | 10.37               |
| NPB              | 140x70  | 12.89               |
| NPB              | 160x80  | 15.77               |
| NPB              | 180x90  | 15.37, 18.80, 21.27 |
| NPB              | 200x100 | 18.42, 22.36, 25.09 |
| NPB              | 200x130 | 27.37, 31.55        |
| NPB              | 200x150 | 30.45               |
| NPB              | 200x165 | 35.68, 42.47, 48    |
| NPB              | 220x110 | 22.18, 26.20, 29.35 |
| NPB              | 240x120 | 26.15, 30.71, 34.31 |
| NPB              | 250x125 | 30.11               |
| NPB              | 250x150 | 34.08, 39.78, 46.48 |
| NPB              | 250x175 | 43.94               |
| NPB              | 270x135 | 30.73, 42.26        |
| NPB              | 300x150 | 36.52, 42.24, 49.32 |
| NPB              | 300x165 | 39.88, 45.76, 53.46 |
| NPB              | 300x200 | 59.56, 66.75, 75.37 |

| Angles (IS 808) |                 | Mass (kg/m)           |
|-----------------|-----------------|-----------------------|
| ISA             | 90X6,8,10,12    | 8.2,10.8,13.4,15.8    |
| ISA             | 100X 6,8,10,12  | 9.2,12.1,14.9,17.7    |
| ISA             | 110X8,10,12,16  | 13.4 , 16.6,19.7,25.7 |
| ISA             | 130X8,10,12,16  | 15.9,19.7,23.5,30.7   |
| ISA             | 150X10,12,16,20 | 22.9,27.3,35.8,44.1   |
| ISA             | 200X12,16,20,25 | 36.8 ,48.5,60.0,73.9  |



| Beams (IS 12778) |         | Mass (kg/m)                |
|------------------|---------|----------------------------|
| WPB              | 100x100 | 12.24, 16.67, 20.44, 41.79 |
| WPB              | 120x120 | 14.56, 19.89, 26.69, 52.13 |
| WPB              | 140x140 | 18.07, 24.66, 33.72, 63.24 |
| WPB              | 150x150 | 22.96, 30.04, 36.98        |
| WPB              | 160x160 | 23.83, 30.44, 42.59, 76.19 |

| Beams (ASTM A6) |         | Mass (kg/m)                    |
|-----------------|---------|--------------------------------|
| W               | 100x100 | 19.3                           |
| W               | 130x130 | 23.8, 28.1                     |
| W               | 150x150 | 13,13.5,18.0,22.5,24,29.8,37.1 |

| Channels (IS 808) |     | Mass (kg/m)       |
|-------------------|-----|-------------------|
| MC                | 100 | 9.6               |
| MC                | 125 | 13.1, 13.7        |
| MC                | 150 | 16.8 , 17.7       |
| MC                | 175 | 19.6 ,22.7        |
| MC                | 200 | 22.3 , 24.3       |
| MC                | 225 | 26.1, 30.7        |
| MC                | 250 | 30.6 , 34.2, 38.1 |
| MC                | 300 | 36.3 , 41.5, 46.2 |

| Beams (IS 808) |     | Mass (kg/m) |
|----------------|-----|-------------|
| MB             | 100 | 8.9         |
| MB             | 125 | 13.3        |
| MB             | 150 | 15.0        |
| MB             | 175 | 19.6        |
| MB             | 200 | 24.2        |
| MB             | 225 | 31.1        |
| MB             | 250 | 37.3        |
| MB             | 300 | 46.0        |

NPB - Narrow flange parallel beams,  
 WPB - Wide flange parallel beams,  
 W - Wide flange beam (ASTM)  
 MB - Indian standard medium Beam,  
 MC - Indian standard medium channel,  
 ISA - Indian standard equal angles

\* Product Availability to be checked prior to order booking

# PRODUCT RANGE\*

ISP, Burnpur

| Beams<br>(IS 12778) | Mass<br>(kg/m)         | Equivalent<br>(DIN 1025) |
|---------------------|------------------------|--------------------------|
| NPB 240x120         | 30.71                  | IPE 240                  |
| NPB 270x135         | 36.07                  | IPE 270                  |
| NPB 300x150         | 36.52, 42.24, 49.32    | IPE 300                  |
| NPB 300x200         | 59.56, 66.75, 75.37    | --                       |
| NPB 330x160         | 49.15                  | IPE 330                  |
| NPB 350x170         | 57.09                  | IPE 360                  |
| NPB 350x250         | 79.18                  | --                       |
| NPB 400x180         | 57.38, 66.3, 75.66     | IPE 400                  |
| NPB 400x200         | 67.28                  | --                       |
| NPB 450x190         | 67.15, 77.57, 92.36    | IPE 450                  |
| NPB 500x200         | 79.36, 90.68, 107.31   | IPE 500                  |
| NPB 550x210         | 105.52                 | IPE 550                  |
| NPB 600x220         | 107.56, 122.45, 154.46 | IPE 600                  |
| NPB 750x270         | 145.29, 174.54, 202.48 | IPE 750                  |

| Channels<br>(DIN 1026) | Mass<br>(kg/m) | Angles<br>(IS 808) | Mass<br>(kg/m) |
|------------------------|----------------|--------------------|----------------|
| UPN 200                | 25.3           | 150x150x10         | 22.9           |
| UPN 220                | 29.4           | 150x150x12         | 27.3           |
| UPN 240                | 33.2           | 150x150x16         | 35.8           |
| UPN 260                | 37.9           | 150x150x20         | 44.1           |
| UPN 280                | 41.8           | 160x160x15         | 36.2           |
| UPN 300                | 46.2           | 180x180x16         | 43.5           |
| UPN 320                | 59.5           | 200x200x12         | 36.9           |
| UPN 350                | 60.6           | 200x200x16         | 48.5           |
| UPN 400                | 71.8           | 200x200x20         | 60             |
|                        |                | 200x200x25         | 73.9           |

**IPE / NPB** - Narrow Flange Parallel Beams

**HE / WPB** - Wide Flange Parallel Beams

**UPN** - Channel (U Section) as per DIN

**MC** - Indian Standard Medium Channel

| Beams<br>(IS 12778) | Mass<br>(kg/m) | Equivalent<br>(DIN 1025) |
|---------------------|----------------|--------------------------|
| WPB 200x200         | 42.26          | HE 200 A                 |
|                     | 61.30          | HE 200 B                 |
| WPB 220x220         | 50.51          | HE 220 A                 |
|                     | 71.47          | HE 220 B                 |
| WPB 240x240         | 60.32          | HE 240 A                 |
|                     | 83.20          | HE 240 B                 |
| WPB 260x260         | 68.16          | HE 260 A                 |
|                     | 92.99          | HE 260 B                 |
| WPB 280x280         | 76.36          | HE 280 A                 |
| --                  | 103.13         | HE 280 B                 |
| WPB 300x300         | 88.34          | HE 300 A                 |
|                     | 100.84         | --                       |
|                     | 117.04         | HE 300 B                 |
|                     | 237.92         | --                       |
| WPB 320x300         | 97.64          | HE 320 A                 |
|                     | 126.66         | HE 320 B                 |
| WPB 340x300         | 104.79         | HE 340 A                 |
|                     | 134.16         | HE 340 B                 |
| WPB 360x300         | 112.07         | HE 360 A                 |
|                     | 141.81         | HE 360 B                 |
| WPB 400x300         | 124.81         | HE 400 A                 |
|                     | 155.26         | HE 400 B                 |
| WPB 450x300         | 139.76         | HE 450 A                 |
|                     | 171.12         | HE 450 B                 |

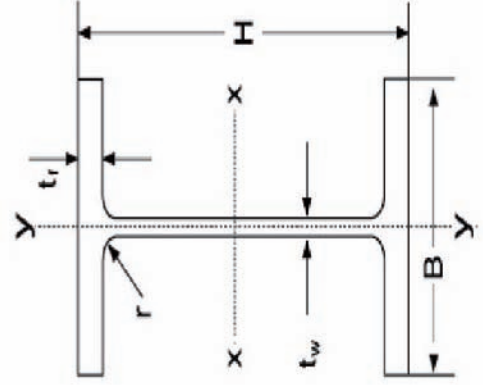
| Channel<br>(IS 808) | Mass<br>(kg/m)   |
|---------------------|------------------|
| MC 200              | 22.3, 24.3       |
| MC 250              | 30.6, 34.2, 38.1 |
| MC 300              | 36.3, 41.5, 46.2 |
| MC 350              | 42.7             |

\* Product Availability to be checked prior to order booking

# SECTIONAL PROPERTIES

Narrow Parallel Flange Beams as per IS 12778 / (DIN 1025)

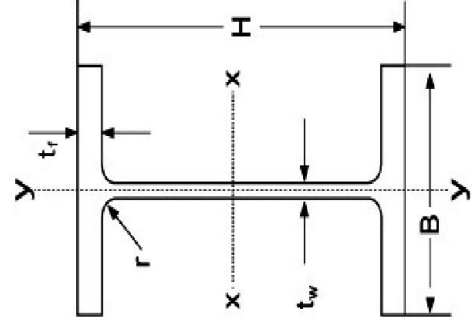
| Beam (NPB)  | Mass            |       | Dimensions |       |           |              | Sectional Properties |                   |         |                    |                 |                 |                 |                         |                 |
|-------------|-----------------|-------|------------|-------|-----------|--------------|----------------------|-------------------|---------|--------------------|-----------------|-----------------|-----------------|-------------------------|-----------------|
|             | M               | A     | Depth      | Width | Web Thick | Flange Thick | Root Rad             | Moment of Inertia |         | Radius of Gyration |                 | Section Modulus |                 | Plastic Section Modulus |                 |
|             |                 |       |            |       |           |              |                      | $I_x$             | $I_y$   | $r_x$              | $r_y$           | $Z_x$           | $Z_y$           | $Z_{px}$                | $Z_{py}$        |
| kg/m        | cm <sup>2</sup> | mm    | mm         | mm    | mm        | mm           | cm <sup>4</sup>      | cm <sup>4</sup>   | cm      | cm                 | cm <sup>3</sup> | cm <sup>3</sup> | cm <sup>3</sup> | cm <sup>3</sup>         | cm <sup>3</sup> |
| NPB 100X55  | 8.10            | 10.32 | 100        | 55    | 4.1       | 5.7          | 7                    | 171.01            | 15.92   | 4.07               | 1.24            | 34.20           | 5.79            | 39.41                   | 9.15            |
| NPB 120X60  | 10.37           | 13.21 | 120        | 64    | 4.4       | 6.3          | 7                    | 317.75            | 27.67   | 4.90               | 1.45            | 52.96           | 8.65            | 60.73                   | 13.58           |
| NPB 140X70  | 12.90           | 16.43 | 140        | 73    | 4.7       | 6.9          | 7                    | 541.22            | 44.92   | 5.74               | 1.65            | 77.32           | 12.31           | 88.35                   | 19.25           |
| NPB 160X80  | 15.77           | 20.09 | 160        | 82    | 5         | 7.4          | 9                    | 869.29            | 68.31   | 6.58               | 1.84            | 108.66          | 16.66           | 123.87                  | 26.10           |
| NPB 180X90  | 15.37           | 19.58 | 177        | 91    | 4.3       | 6.5          | 9                    | 1062.74           | 81.89   | 7.37               | 2.05            | 120.08          | 18.00           | 135.34                  | 27.96           |
| NPB 180X90  | 18.80           | 23.95 | 180        | 91    | 5.3       | 8            | 9                    | 1316.96           | 100.85  | 7.42               | 2.05            | 146.33          | 22.16           | 166.42                  | 34.60           |
| NPB 180X90  | 21.27           | 27.10 | 182        | 92    | 6         | 9            | 9                    | 1505.23           | 117.29  | 7.45               | 2.08            | 165.41          | 25.50           | 189.16                  | 39.91           |
| NPB 200X100 | 18.43           | 23.47 | 197        | 100   | 4.5       | 7            | 12                   | 1591.47           | 117.17  | 8.23               | 2.23            | 161.57          | 23.43           | 181.67                  | 36.54           |
| NPB 200X100 | 22.36           | 28.49 | 200        | 100   | 5.6       | 8.5          | 12                   | 1943.17           | 142.37  | 8.26               | 2.24            | 194.32          | 28.47           | 220.66                  | 44.62           |
| NPB 200X100 | 25.09           | 31.96 | 202        | 102   | 6.2       | 9.5          | 12                   | 2211.05           | 168.86  | 8.32               | 2.30            | 218.92          | 33.11           | 249.44                  | 51.90           |
| NPB 200X130 | 27.37           | 34.87 | 207        | 133   | 5.8       | 8.5          | 12                   | 2665.50           | 334.05  | 8.74               | 3.10            | 257.54          | 50.23           | 288.18                  | 77.47           |
| NPB 200X130 | 31.56           | 40.20 | 210        | 134   | 6.4       | 10           | 12                   | 3153.46           | 401.92  | 8.86               | 3.16            | 300.33          | 59.99           | 337.19                  | 92.46           |
| NPB 200X150 | 30.46           | 38.80 | 194        | 150   | 6         | 9            | 12                   | 2674.64           | 507.03  | 8.30               | 3.62            | 275.74          | 67.60           | 306.78                  | 103.54          |
| NPB 200X165 | 35.69           | 45.46 | 201        | 165   | 6.2       | 10           | 12                   | 3414.20           | 749.52  | 8.67               | 4.06            | 339.72          | 90.85           | 376.80                  | 138.58          |
| NPB 200X165 | 42.48           | 54.11 | 205        | 166   | 7.2       | 12           | 12                   | 4165.96           | 915.97  | 8.77               | 4.11            | 406.43          | 110.36          | 454.30                  | 168.46          |
| NPB 200X165 | 48.00           | 61.14 | 210        | 166   | 6.5       | 14.5         | 12                   | 5024.83           | 1106.37 | 9.07               | 4.25            | 478.56          | 133.30          | 534.68                  | 202.43          |



# SECTIONAL PROPERTIES

Narrow Parallel Flange Beams as per IS 12778 / (DIN 1025)

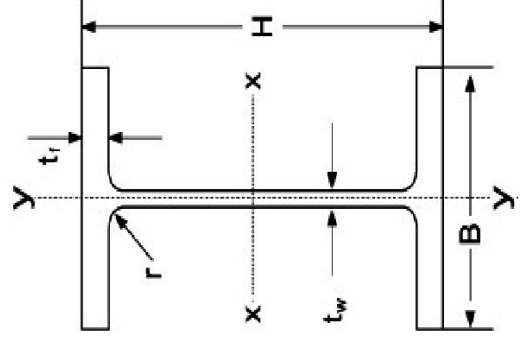
| Beam (NPB)            | Mass<br>kg/m | Area<br>cm <sup>2</sup> | Dimensions       |                  |                                   |                                      | Sectional Properties |                                   |                                   |                      |                      |                                   |                                   |                                    |                                    |  |
|-----------------------|--------------|-------------------------|------------------|------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------------------|-----------------------------------|----------------------|----------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|--|
|                       |              |                         | Depth<br>H<br>mm | Width<br>B<br>mm | Web Thick<br>t <sub>w</sub><br>mm | Flange Thick<br>t <sub>f</sub><br>mm | Root Rad<br>r<br>mm  | Moment of Inertia                 |                                   | Radius of Gyration   |                      | Section Modulus                   |                                   | Plastic Section Modulus            |                                    |  |
|                       |              |                         |                  |                  |                                   |                                      |                      | I <sub>x</sub><br>cm <sup>4</sup> | I <sub>y</sub><br>cm <sup>4</sup> | r <sub>x</sub><br>cm | r <sub>y</sub><br>cm | Z <sub>x</sub><br>cm <sup>3</sup> | Z <sub>y</sub><br>cm <sup>3</sup> | Z <sub>px</sub><br>cm <sup>3</sup> | Z <sub>py</sub><br>cm <sup>3</sup> |  |
| NPB 220X110           | 22.18        | 28.26                   | 217              | 110              | 5                                 | 7.7                                  | 12                   | 2316.51                           | 171.42                            | 9.05                 | 2.46                 | 213.50                            | 31.17                             | 240.23                             | 48.49                              |  |
| NPB 220X110           | 26.20        | 33.37                   | 220              | 110              | 5.9                               | 9.2                                  | 12                   | 2771.84                           | 204.89                            | 9.11                 | 2.48                 | 251.99                            | 37.25                             | 285.43                             | 58.11                              |  |
| NPB 220X110           | 29.35        | 37.39                   | 222              | 112              | 6.6                               | 10.2                                 | 12                   | 3134.05                           | 239.83                            | 9.16                 | 2.53                 | 282.35                            | 42.83                             | 321.17                             | 66.91                              |  |
| NPB 240X120           | 26.15        | 33.32                   | 237              | 120              | 5.2                               | 8.3                                  | 15                   | 3290.46                           | 240.13                            | 9.94                 | 2.68                 | 277.68                            | 40.02                             | 311.61                             | 62.41                              |  |
| NPB 240X120 (IPE 240) | 30.71        | 39.12                   | 240              | 120              | 6.2                               | 9.8                                  | 15                   | 3891.62                           | 283.63                            | 9.97                 | 2.69                 | 324.30                            | 47.27                             | 366.68                             | 73.93                              |  |
| NPB 240X120           | 34.32        | 43.72                   | 242              | 122              | 7                                 | 10.8                                 | 15                   | 4369.26                           | 328.54                            | 10.00                | 2.74                 | 361.10                            | 53.86                             | 410.31                             | 84.40                              |  |
| NPB 250X125           | 30.11        | 38.36                   | 250              | 125              | 6                                 | 9                                    | 15                   | 4138.18                           | 294.32                            | 10.39                | 2.77                 | 331.05                            | 47.09                             | 373.65                             | 73.63                              |  |
| NPB 250X150           | 34.08        | 43.41                   | 258              | 146              | 6.1                               | 9.2                                  | 15                   | 5120.46                           | 478.59                            | 10.86                | 3.32                 | 396.94                            | 65.56                             | 444.26                             | 101.53                             |  |
| NPB 250X150           | 39.78        | 50.68                   | 262              | 147              | 6.6                               | 11.2                                 | 15                   | 6200.00                           | 594.53                            | 11.06                | 3.43                 | 473.28                            | 80.89                             | 530.17                             | 124.91                             |  |
| NPB 250X150           | 46.49        | 59.22                   | 266              | 148              | 7.6                               | 13.2                                 | 15                   | 7381.40                           | 715.21                            | 11.16                | 3.48                 | 554.99                            | 96.65                             | 625.47                             | 149.41                             |  |
| NPB 250X175           | 43.94        | 55.98                   | 244              | 175              | 7                                 | 11                                   | 15                   | 6091.39                           | 984.25                            | 10.43                | 4.19                 | 499.29                            | 112.49                            | 555.60                             | 172.49                             |  |
| NPB 270X135           | 30.74        | 39.15                   | 267              | 135              | 5.5                               | 8.7                                  | 15                   | 4917.29                           | 357.97                            | 11.21                | 3.02                 | 368.34                            | 53.03                             | 412.53                             | 82.35                              |  |
| NPB 270X135 (IPE 270) | 36.07        | 45.95                   | 270              | 135              | 6.6                               | 10.2                                 | 15                   | 5789.78                           | 419.87                            | 11.23                | 3.02                 | 428.87                            | 62.20                             | 484.04                             | 96.96                              |  |
| NPB 270X135           | 42.26        | 53.84                   | 274              | 136              | 7.5                               | 12.2                                 | 15                   | 6947.04                           | 513.48                            | 11.36                | 3.09                 | 507.08                            | 75.51                             | 574.69                             | 117.71                             |  |



# SECTIONAL PROPERTIES

Narrow Parallel Flange Beams as per IS 12778 / (DIN 1025)

| Beam (NPB)               | Mass<br>M<br>kg/m | Area<br>A<br>cm <sup>2</sup> | Dimensions       |                  |                                   |                                      | Sectional Properties |                                   |                                   |                      |                      |                                   |                                   |                                    |                                    |
|--------------------------|-------------------|------------------------------|------------------|------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------------------|-----------------------------------|----------------------|----------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|
|                          |                   |                              | Depth<br>H<br>mm | Width<br>B<br>mm | Web Thick<br>t <sub>w</sub><br>mm | Flange Thick<br>t <sub>f</sub><br>mm | Root Rad<br>r<br>mm  | Moment of Inertia                 |                                   | Radius of Gyration   |                      | Section Modulus                   |                                   | Plastic Section Modulus            |                                    |
|                          |                   |                              |                  |                  |                                   |                                      |                      | I <sub>x</sub><br>cm <sup>4</sup> | I <sub>y</sub><br>cm <sup>4</sup> | r <sub>x</sub><br>cm | r <sub>y</sub><br>cm | Z <sub>x</sub><br>cm <sup>3</sup> | Z <sub>y</sub><br>cm <sup>3</sup> | Z <sub>px</sub><br>cm <sup>3</sup> | Z <sub>py</sub><br>cm <sup>3</sup> |
| NPB 300X150<br>(IPE 300) | 36.53             | 46.53                        | 297              | 150              | 6.1                               | 9.2                                  | 15                   | 7173.49                           | 518.97                            | 12.42                | 3.34                 | 483.06                            | 69.20                             | 541.83                             | 107.33                             |
| NPB 300X150<br>(IPE 300) | 42.25             | 53.82                        | 300              | 150              | 7.1                               | 10.7                                 | 15                   | 8356.10                           | 603.78                            | 12.46                | 3.35                 | 557.07                            | 80.50                             | 628.40                             | 125.23                             |
| NPB 300X150<br>(IPE 300) | 49.32             | 62.83                        | 304              | 152              | 8                                 | 12.7                                 | 15                   | 9994.20                           | 745.72                            | 12.61                | 3.45                 | 657.51                            | 98.12                             | 743.86                             | 152.59                             |
| NPB 300X165              | 39.88             | 50.80                        | 310              | 165              | 5.8                               | 9.7                                  | 15                   | 8794.62                           | 727.61                            | 13.16                | 3.78                 | 567.40                            | 88.19                             | 630.54                             | 135.70                             |
| NPB 300X165              | 45.76             | 58.30                        | 313              | 166              | 6.6                               | 11.2                                 | 15                   | 10210.04                          | 855.57                            | 13.23                | 3.83                 | 652.40                            | 103.08                            | 727.91                             | 158.77                             |
| NPB 300X165              | 53.47             | 68.11                        | 317              | 167              | 7.6                               | 13.2                                 | 15                   | 12122.66                          | 1026.84                           | 13.34                | 3.88                 | 764.84                            | 122.98                            | 857.61                             | 189.65                             |
| NPB 350X250              | 79.18             | 100.87                       | 340              | 250              | 9                                 | 14                                   | 18                   | 21530.29                          | 3650.06                           | 14.61                | 6.02                 | 1266.49                           | 292.01                            | 1402.36                            | 446.20                             |
| NPB 400X180<br>(IPE 400) | 57.38             | 73.10                        | 397              | 180              | 7                                 | 12                                   | 21                   | 20292.57                          | 1170.59                           | 16.66                | 4.00                 | 1022.30                           | 130.07                            | 1144.02                            | 202.09                             |
| NPB 400X180<br>(IPE 400) | 66.31             | 84.47                        | 400              | 180              | 8.6                               | 13.5                                 | 21                   | 23128.35                          | 1317.82                           | 16.55                | 3.95                 | 1156.42                           | 146.42                            | 1307.26                            | 229.02                             |
| NPB 400X180<br>(IPE 400) | 75.66             | 96.39                        | 404              | 182              | 9.7                               | 15.5                                 | 21                   | 26747.02                          | 1564.25                           | 16.66                | 4.03                 | 1324.11                           | 171.90                            | 1502.29                            | 269.11                             |



# SECTIONAL PROPERTIES

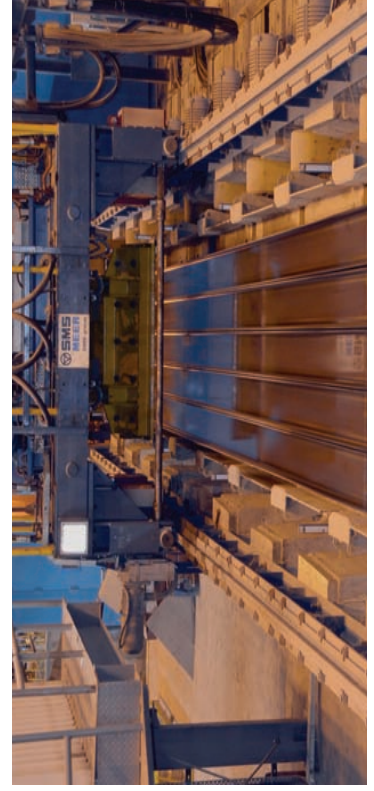
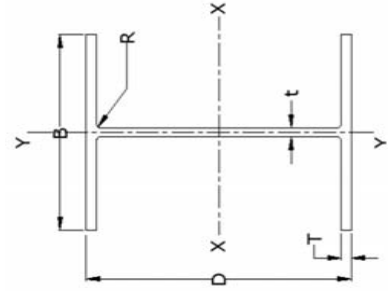
Narrow Parallel Flange Beams as per IS 12778 / (DIN 1025)

| Beam (NPB)            | Mass<br>kg/m | Area<br>cm <sup>2</sup> | Dimensions       |                  |                                   |                                      | Sectional Properties |                                   |                                   |                      |                      |                                   |                                   |                                    |                                    |
|-----------------------|--------------|-------------------------|------------------|------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------------------|-----------------------------------|----------------------|----------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|
|                       |              |                         | Depth<br>H<br>mm | Width<br>B<br>mm | Web Thick<br>t <sub>w</sub><br>mm | Flange Thick<br>t <sub>f</sub><br>mm | Root Rad<br>r<br>mm  | Moment of Inertia                 |                                   | Radius of Gyration   |                      | Section Modulus                   |                                   | Plastic Section Modulus            |                                    |
|                       |              |                         |                  |                  |                                   |                                      |                      | I <sub>x</sub><br>cm <sup>4</sup> | I <sub>y</sub><br>cm <sup>4</sup> | r <sub>x</sub><br>cm | r <sub>y</sub><br>cm | Z <sub>x</sub><br>cm <sup>3</sup> | Z <sub>y</sub><br>cm <sup>3</sup> | Z <sub>px</sub><br>cm <sup>3</sup> | Z <sub>py</sub><br>cm <sup>3</sup> |
| NPB 400X200           | 67.28        | 85.71                   | 400              | 200              | 8                                 | 13                                   | 21                   | 24223.63                          | 1738.37                           | 16.81                | 4.50                 | 1211.18                           | 173.84                            | 1355.08                            | 269.29                             |
| NPB 450X190 (IPE 450) | 67.15        | 85.55                   | 447              | 190              | 7.6                               | 13.1                                 | 21                   | 29758.80                          | 1502.40                           | 18.65                | 4.19                 | 1331.49                           | 158.15                            | 1494.42                            | 245.76                             |
| NPB 450X190 (IPE 450) | 77.58        | 98.83                   | 450              | 190              | 9.4                               | 14.6                                 | 21                   | 33742.91                          | 1675.86                           | 18.48                | 4.12                 | 1499.69                           | 176.41                            | 1701.93                            | 276.40                             |
| NPB 450X190 (IPE 450) | 92.36        | 117.66                  | 456              | 192              | 11                                | 17.6                                 | 21                   | 40923.40                          | 2085.36                           | 18.65                | 4.21                 | 1794.89                           | 217.23                            | 2046.40                            | 341.01                             |
| NPB 500X200 (IPE 500) | 79.36        | 101.10                  | 497              | 200              | 8.4                               | 14.5                                 | 21                   | 42933.41                          | 1939.22                           | 20.61                | 4.38                 | 1727.70                           | 193.92                            | 1946.16                            | 301.64                             |
| NPB 500X200 (IPE 500) | 90.69        | 115.53                  | 500              | 200              | 10.2                              | 16                                   | 21                   | 48198.50                          | 2141.68                           | 20.43                | 4.31                 | 1927.94                           | 214.17                            | 2194.27                            | 335.90                             |
| NPB 500X200 (IPE 500) | 107.31       | 136.71                  | 506              | 202              | 12                                | 19                                   | 21                   | 57777.26                          | 2621.75                           | 20.56                | 4.38                 | 2283.69                           | 259.58                            | 2613.13                            | 408.55                             |
| NPB 550X210 (IPE 550) | 105.52       | 134.43                  | 550              | 210              | 11.1                              | 17.2                                 | 24                   | 67116.46                          | 2667.58                           | 22.34                | 4.45                 | 2440.60                           | 254.06                            | 2787.22                            | 400.56                             |
| NPB 600X220 (IPE 600) | 107.56       | 137.03                  | 597              | 220              | 9.8                               | 17.5                                 | 24                   | 82918.80                          | 3116.28                           | 24.60                | 4.77                 | 2777.85                           | 283.30                            | 3141.42                            | 442.09                             |
| NPB 600X220 (IPE 600) | 122.45       | 155.99                  | 600              | 220              | 12                                | 19                                   | 24                   | 92083.40                          | 3387.34                           | 24.30                | 4.66                 | 3069.45                           | 307.94                            | 3512.64                            | 485.68                             |
| NPB 600X220 (IPE 600) | 154.46       | 196.77                  | 610              | 224              | 15                                | 24                                   | 24                   | 118302.06                         | 4520.75                           | 24.52                | 4.79                 | 3878.76                           | 403.64                            | 4471.27                            | 640.11                             |
| NPB 750X270 (IPE 750) | 145.29       | 185.08                  | 750              | 265              | 13.2                              | 16.6                                 | 17                   | 161957.86                         | 5165.33                           | 29.58                | 5.28                 | 4318.88                           | 389.84                            | 5009.90                            | 616.68                             |
| NPB 750X270 (IPE 750) | 174.54       | 222.34                  | 760              | 270              | 14.4                              | 21.6                                 | 17                   | 206350.6                          | 7106.97                           | 30.46                | 5.65                 | 5430.28                           | 526.44                            | 6244.16                            | 827.22                             |
| NPB 750X270 (IPE 750) | 202.48       | 257.95                  | 770              | 270              | 15.6                              | 26.6                                 | 17                   | 249536.79                         | 8752.39                           | 31.10                | 5.83                 | 6481.48                           | 648.33                            | 7431.05                            | 1016.07                            |

# SECTIONAL PROPERTIES

Wide Parallel Flange Beams as per IS 12778 / (DIN 1025)

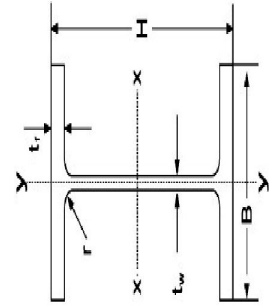
| Beam (WPB)  | Mass            |       | Dimensions |     |           |              | Sectional Properties |                   |                |                    |                 |                 |                 |                 |                 |                         |  |
|-------------|-----------------|-------|------------|-----|-----------|--------------|----------------------|-------------------|----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------------|--|
|             | M               | A     | H          | B   | Web Thick | Flange Thick | Root Rad             | Moment of Inertia |                | Radius of Gyration |                 |                 | Section Modulus |                 |                 | Plastic Section Modulus |  |
|             |                 |       |            |     |           |              |                      | I <sub>x</sub>    | I <sub>y</sub> | r <sub>x</sub>     | r <sub>y</sub>  | Z <sub>x</sub>  | Z <sub>y</sub>  | Z <sub>px</sub> | Z <sub>py</sub> |                         |  |
| kg/m        | cm <sup>2</sup> | mm    | mm         | mm  | mm        | mm           | cm <sup>4</sup>      | cm <sup>4</sup>   | cm             | cm                 | cm <sup>3</sup> | cm <sup>3</sup> | cm <sup>3</sup> | cm <sup>3</sup> | cm <sup>3</sup> | cm <sup>3</sup>         |  |
| WPB 100x100 | 12.24           | 15.60 | 91         | 100 | 4.2       | 5.5          | 12                   | 236.51            | 92.06          | 3.89               | 2.43            | 51.98           | 18.41           | 58.36           | 28.45           |                         |  |
| WPB 100x100 | 16.67           | 21.24 | 96         | 100 | 5         | 8            | 349.22               | 133.81            | 4.06           | 2.51               | 2.74            | 72.76           | 26.76           | 83.02           | 41.14           |                         |  |
| WPB 100x100 | 20.44           | 26.04 | 100        | 100 | 6         | 10           | 449.54               | 167.27            | 4.16           | 2.53               | 2.74            | 89.91           | 33.45           | 104.22          | 51.43           |                         |  |
| WPB 100x100 | 41.79           | 53.24 | 120        | 106 | 12        | 20           | 1142.61              | 399.15            | 4.63           | 2.74               | 2.93            | 190.44          | 75.31           | 235.82          | 116.32          |                         |  |
| WPB 120x120 | 14.57           | 18.55 | 109        | 120 | 4.2       | 5.5          | 413.36               | 158.81            | 4.72           | 2.93               | 3.02            | 75.85           | 26.47           | 84.13           | 40.63           |                         |  |
| WPB 120x120 | 19.89           | 25.34 | 114        | 120 | 5         | 8            | 606.15               | 230.90            | 4.89           | 3.02               | 3.06            | 106.34          | 38.48           | 119.50          | 58.86           |                         |  |
| WPB 120x120 | 26.70           | 34.01 | 120        | 120 | 6.5       | 11           | 864.37               | 317.52            | 5.04           | 3.06               | 3.25            | 144.06          | 52.92           | 165.22          | 80.97           |                         |  |
| WPB 120x120 | 52.13           | 66.41 | 140        | 126 | 12.5      | 21           | 2017.57              | 702.77            | 5.51           | 3.25               | 3.45            | 288.22          | 111.55          | 350.62          | 171.63          |                         |  |
| WPB 140x140 | 18.08           | 23.03 | 128        | 140 | 4.3       | 6            | 719.45               | 274.83            | 5.59           | 3.45               | 3.52            | 112.41          | 39.26           | 123.79          | 59.94           |                         |  |
| WPB 140x140 | 24.66           | 31.42 | 133        | 140 | 5.5       | 8.5          | 1033.13              | 389.32            | 5.73           | 3.52               | 3.58            | 155.36          | 55.62           | 173.51          | 84.85           |                         |  |
| WPB 140x140 | 33.72           | 42.96 | 140        | 140 | 7         | 12           | 1509.23              | 549.67            | 5.93           | 3.58               | 3.77            | 215.60          | 78.52           | 245.44          | 119.79          |                         |  |
| WPB 140x140 | 63.24           | 80.56 | 160        | 146 | 13        | 22           | 3291.36              | 1144.34           | 6.39           | 3.77               | 3.69            | 411.42          | 156.76          | 493.84          | 240.52          |                         |  |
| WPB 150x150 | 22.96           | 29.25 | 152        | 152 | 5.8       | 6.8          | 1243.48              | 398.36            | 6.52           | 3.69               | 3.83            | 163.62          | 52.42           | 181.56          | 79.98           |                         |  |
| WPB 150x150 | 30.11           | 38.36 | 158        | 153 | 6.5       | 9.4          | 1761.41              | 561.58            | 6.78           | 3.83               | 3.86            | 222.96          | 73.41           | 248.94          | 111.77          |                         |  |
| WPB 150x150 | 36.97           | 47.09 | 162        | 154 | 8         | 11.5         | 2213.83              | 700.81            | 6.86           | 3.86               | 3.97            | 273.31          | 91.01           | 308.90          | 138.91          |                         |  |
| WPB 160x160 | 23.84           | 30.37 | 148        | 160 | 4.5       | 7            | 1282.88              | 478.73            | 6.50           | 3.97               | 3.98            | 173.36          | 59.84           | 190.43          | 91.37           |                         |  |
| WPB 160x160 | 30.44           | 38.78 | 152        | 160 | 6         | 9            | 1672.97              | 615.57            | 6.57           | 3.98               | 4.05            | 220.13          | 76.95           | 245.17          | 117.64          |                         |  |
| WPB 160x160 | 42.59           | 54.26 | 160        | 160 | 8         | 13           | 2492.00              | 889.23            | 6.78           | 4.05               | 4.26            | 311.50          | 111.15          | 353.98          | 169.97          |                         |  |
| WPB 160x160 | 76.19           | 97.06 | 180        | 166 | 14        | 23           | 5098.26              | 1758.77           | 7.25           | 4.26               |                 | 566.47          | 211.90          | 674.58          | 325.47          |                         |  |



# SECTIONAL PROPERTIES

Wide Parallel Flange Beams as per IS 12778 / (DIN 1025)

| Beam (WPB)                | Mass<br>kg/m | Area<br>cm <sup>2</sup> | Dimensions       |                  |                                   |                                      | Sectional Properties |                                   |                                   |                      |                      |                                   |                                   |                                    |                                    |  |
|---------------------------|--------------|-------------------------|------------------|------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------------------|-----------------------------------|----------------------|----------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|--|
|                           |              |                         | Depth<br>H<br>mm | Width<br>B<br>mm | Web Thick<br>t <sub>w</sub><br>mm | Flange Thick<br>t <sub>f</sub><br>mm | Root Rad<br>r<br>mm  | Moment of Inertia                 |                                   | Radius of Gyration   |                      | Section Modulus                   |                                   | Plastic Section Modulus            |                                    |  |
|                           |              |                         |                  |                  |                                   |                                      |                      | I <sub>x</sub><br>cm <sup>4</sup> | I <sub>y</sub><br>cm <sup>4</sup> | r <sub>x</sub><br>cm | r <sub>y</sub><br>cm | Z <sub>x</sub><br>cm <sup>3</sup> | Z <sub>y</sub><br>cm <sup>3</sup> | Z <sub>px</sub><br>cm <sup>3</sup> | Z <sub>py</sub><br>cm <sup>3</sup> |  |
| WPB 200x200<br>(HE 200 A) | 42.26        | 53.84                   | 190              | 200              | 6.5                               | 10                                   | 18                   | 3692.15                           | 1335.51                           | 8.28                 | 4.98                 | 388.65                            | 133.55                            | 429.52                             | 203.83                             |  |
| WPB 200x200<br>(HE 200 B) | 61.30        | 78.09                   | 200              | 200              | 9                                 | 15                                   | 18                   | 5696.17                           | 2003.37                           | 8.54                 | 5.07                 | 569.62                            | 200.34                            | 642.58                             | 305.82                             |  |
| WPB 220x220<br>(HE 220 A) | 50.51        | 64.35                   | 210              | 220              | 7                                 | 11                                   | 18                   | 5409.69                           | 1954.56                           | 9.17                 | 5.51                 | 515.21                            | 177.69                            | 568.50                             | 270.61                             |  |
| WPB 220x220<br>(HE 220 B) | 71.47        | 91.05                   | 220              | 220              | 9.5                               | 16                                   | 18                   | 8090.96                           | 2843.26                           | 9.43                 | 5.59                 | 735.54                            | 258.48                            | 827.09                             | 393.89                             |  |
| WPB 240x240<br>(HE 240 A) | 60.32        | 76.84                   | 230              | 240              | 7.5                               | 12                                   | 21                   | 7763.17                           | 2768.81                           | 10.05                | 6.00                 | 675.06                            | 230.73                            | 744.68                             | 351.71                             |  |
| WPB 240x240<br>(HE 240 B) | 83.20        | 105.99                  | 240              | 240              | 10                                | 17                                   | 21                   | 11259.29                          | 3922.66                           | 10.31                | 6.08                 | 938.27                            | 326.89                            | 1053.20                            | 498.44                             |  |
| WPB 260x260<br>(HE 260 A) | 68.16        | 86.83                   | 250              | 260              | 7.5                               | 12.5                                 | 24                   | 10454.94                          | 3667.56                           | 10.97                | 6.50                 | 836.39                            | 282.12                            | 919.85                             | 430.19                             |  |
| WPB 260x260<br>(HE 260 B) | 92.99        | 118.45                  | 260              | 260              | 10                                | 17.5                                 | 24                   | 14919.41                          | 5134.51                           | 11.22                | 6.58                 | 1147.65                           | 394.96                            | 1282.99                            | 602.27                             |  |
| WPB 280x280<br>(HE 280 A) | 76.36        | 97.27                   | 270              | 280              | 8                                 | 13                                   | 24                   | 13673.28                          | 4762.64                           | 11.86                | 7.00                 | 1012.84                           | 340.19                            | 1112.31                            | 518.16                             |  |
| HE 280 B                  | 103.13       | 131.37                  | 280              | 280              | 10.5                              | 18                                   | 24                   | 19270.25                          | 6594.52                           | 12.11                | 7.08                 | 1376.45                           | 471.04                            | 1534.52                            | 717.60                             |  |
| WPB 300x300<br>(HE 300 A) | 88.34        | 112.54                  | 290              | 300              | 8.5                               | 14                                   | 27                   | 18263.47                          | 6309.55                           | 12.74                | 7.49                 | 1259.55                           | 420.64                            | 1383.39                            | 641.20                             |  |
| WPB 300x300               | 100.84       | 128.47                  | 294              | 300              | 10                                | 16                                   | 27                   | 21046.24                          | 7211.39                           | 12.80                | 7.49                 | 1431.72                           | 480.76                            | 1584.33                            | 733.49                             |  |
| WPB 300x300<br>(HE 300 B) | 117.04       | 149.09                  | 300              | 300              | 11                                | 19                                   | 27                   | 25165.65                          | 8562.82                           | 12.99                | 7.58                 | 1677.71                           | 570.85                            | 1868.79                            | 870.18                             |  |
| WPB 300x300               | 237.92       | 303.09                  | 340              | 310              | 21                                | 39                                   | 27                   | 59200.98                          | 19403.07                          | 13.98                | 8.00                 | 3482.41                           | 1251.81                           | 4077.79                            | 1913.22                            |  |

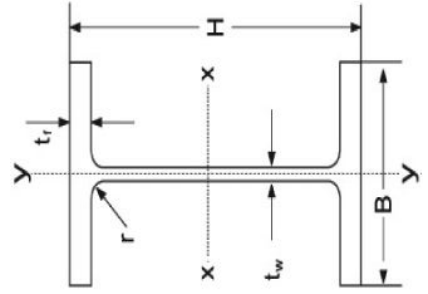




# SECTIONAL PROPERTIES

Wide Parallel Flange Beams as per IS 12778 / (DIN 1025)

| Beam (WPB)                | Mass<br>M<br>kg/m | Area<br>A<br>cm <sup>2</sup> | Dimensions       |                  |                                   |                                      | Sectional Properties |                                   |                                   |                      |                      |                                   |                                   |                                    |                                    |
|---------------------------|-------------------|------------------------------|------------------|------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------------------|-----------------------------------|----------------------|----------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|
|                           |                   |                              | Depth<br>H<br>mm | Width<br>B<br>mm | Web Thick<br>t <sub>w</sub><br>mm | Flange Thick<br>t <sub>f</sub><br>mm | Root Rad<br>r<br>mm  | Moment of Inertia                 |                                   | Radius of Gyration   |                      | Section Modulus                   |                                   | Plastic Section Modulus            |                                    |
|                           |                   |                              |                  |                  |                                   |                                      |                      | I <sub>x</sub><br>cm <sup>4</sup> | I <sub>y</sub><br>cm <sup>4</sup> | r <sub>x</sub><br>cm | r <sub>y</sub><br>cm | Z <sub>x</sub><br>cm <sup>3</sup> | Z <sub>y</sub><br>cm <sup>3</sup> | Z <sub>px</sub><br>cm <sup>3</sup> | Z <sub>py</sub><br>cm <sup>3</sup> |
| WPB 320x300<br>(HE 320 A) | 97.64             | 124.38                       | 310              | 300              | 9                                 | 15.5                                 | 27                   | 22928.56                          | 6985.23                           | 13.58                | 7.49                 | 1479.26                           | 465.68                            | 1628.22                            | 709.78                             |
| WPB 320x300<br>(HE 320 B) | 126.66            | 161.35                       | 320              | 300              | 11.5                              | 20.5                                 | 27                   | 30823.51                          | 9238.82                           | 13.82                | 7.57                 | 1926.47                           | 615.92                            | 2149.37                            | 939.13                             |
| WPB 340x300<br>(HE 340 A) | 104.79            | 133.48                       | 330              | 300              | 9.5                               | 16.5                                 | 27                   | 27693.07                          | 7435.99                           | 14.40                | 7.46                 | 1678.37                           | 495.73                            | 1850.62                            | 755.98                             |
| WPB 340x300<br>(HE 340)   | 134.16            | 170.91                       | 340              | 300              | 12                                | 21.5                                 | 27                   | 36656.36                          | 9689.93                           | 14.65                | 7.53                 | 2156.26                           | 646.00                            | 2408.25                            | 985.76                             |
| WPB 360x300<br>(HE 360 A) | 112.07            | 142.77                       | 350              | 300              | 10                                | 17.5                                 | 27                   | 33089.75                          | 7886.84                           | 15.22                | 7.43                 | 1890.84                           | 525.79                            | 2088.63                            | 802.32                             |
| WPB 360x300<br>(HE 360 B) | 141.81            | 180.64                       | 360              | 300              | 12.5                              | 22.5                                 | 27                   | 43193.42                          | 10141.16                          | 15.46                | 7.49                 | 2399.63                           | 676.08                            | 2683.14                            | 1032.53                            |
| WPB 400x300<br>(HE 400 A) | 124.81            | 158.99                       | 390              | 300              | 11                                | 19                                   | 27                   | 45069.35                          | 8563.82                           | 16.84                | 7.34                 | 2311.25                           | 570.92                            | 2561.97                            | 872.90                             |
| WPB 400x300<br>(HE 400 B) | 155.26            | 197.79                       | 400              | 300              | 13.5                              | 24                                   | 27                   | 57680.48                          | 10819.03                          | 17.08                | 7.40                 | 2884.02                           | 721.27                            | 3231.91                            | 1104.08                            |
| WPB 450x300<br>(HE 450 A) | 139.76            | 178.04                       | 440              | 300              | 11.5                              | 21                                   | 27                   | 63721.58                          | 9465.32                           | 18.92                | 7.29                 | 2896.44                           | 631.02                            | 3216.07                            | 965.57                             |
| WPB 450x300<br>(HE 450 B) | 171.12            | 217.99                       | 450              | 300              | 14                                | 26                                   | 27                   | 79887.52                          | 11721.32                          | 19.14                | 7.33                 | 3550.56                           | 781.42                            | 3982.57                            | 1197.70                            |



# SECTIONAL PROPERTIES

W Beam Section ASTM A6

| Designation                | Dimensions    |               |                       |                                      | Weight<br>(kg/m)         | Static Parameters        |                          |                          |
|----------------------------|---------------|---------------|-----------------------|--------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                            | Depth<br>(mm) | Width<br>(mm) | Web Thickness<br>(mm) | Sectional Area<br>(cm <sup>2</sup> ) |                          | Moment of Inertia        |                          | Section Modulus          |
| Metric<br>(mm x mm x kg/m) |               |               |                       |                                      | Ix<br>(cm <sup>4</sup> ) | Iy<br>(cm <sup>4</sup> ) | Wx<br>(cm <sup>3</sup> ) | Wy<br>(cm <sup>3</sup> ) |
| W 100 x 100 x 19.3         | 106           | 103           | 7.1                   | 24.7                                 | 475.9                    | 160.6                    | 89.9                     | 31.2                     |
| W 130 x 130 x 23.8         | 127           | 127           | 6.1                   | 30.4                                 | 885.5                    | 311                      | 139.5                    | 49                       |
| W 130 x 130 x 28.1         | 131           | 128           | 6.9                   | 35.9                                 | 1099                     | 381.4                    | 167.7                    | 59.6                     |
| W 150 x 100 x 13.0         | 148           | 100           | 4.3                   | 16.3                                 | 622.8                    | 83.0                     | 83.2                     | 16.7                     |
| W 150 x 100 x 13.5         | 150           | 100           | 4.3                   | 17.3                                 | 685.5                    | 91.8                     | 91.4                     | 18.4                     |
| W 150 x 100 x 18.0         | 153           | 102           | 5.8                   | 22.9                                 | 915.9                    | 125.9                    | 122.1                    | 25.4                     |
| W 150 x 100 x 24.0         | 160           | 102           | 6.6                   | 30.6                                 | 1342                     | 182.6                    | 167.8                    | 35.8                     |
| W 150 x 150 x 22.5         | 152           | 152           | 5.8                   | 28.6                                 | 1206                     | 386.6                    | 158.6                    | 50.9                     |
| W 150 x 150 x 29.8         | 157           | 153           | 6.6                   | 37.9                                 | 1714                     | 555.5                    | 218.4                    | 72.6                     |

# SECTIONAL PROPERTIES

Channels UPN as per DIN 1026-1

| Dimensions | Dimensions |     |                |                |                |                |      | slope | Area            | Mass | axis y-y                         |                                  |                                  |                |                   | axis z-z                         |                                  |                                  |                |                   |
|------------|------------|-----|----------------|----------------|----------------|----------------|------|-------|-----------------|------|----------------------------------|----------------------------------|----------------------------------|----------------|-------------------|----------------------------------|----------------------------------|----------------------------------|----------------|-------------------|
|            | h          | b   | t <sub>w</sub> | t <sub>f</sub> | r <sub>1</sub> | r <sub>2</sub> | u    |       |                 |      | %                                | A                                | G                                | I <sub>y</sub> | W <sub>el,y</sub> | W <sub>pl,y</sub>                | i <sub>y</sub>                   | A <sub>yz</sub>                  | I <sub>z</sub> | W <sub>el,z</sub> |
|            | mm         | mm  | mm             | mm             | mm             | mm             | mm   |       | mm <sup>2</sup> | kg/m | mm <sup>4</sup> ×10 <sup>4</sup> | mm <sup>3</sup> ×10 <sup>3</sup> | mm <sup>3</sup> ×10 <sup>3</sup> | mm             | mm <sup>2</sup>   | mm <sup>4</sup> ×10 <sup>4</sup> | mm <sup>3</sup> ×10 <sup>3</sup> | mm <sup>3</sup> ×10 <sup>3</sup> | mm             | mm                |
| UPN 200    | 200        | 75  | 8.5            | 11.5           | 11.5           | 6              | 37.5 | 8     | 3220            | 25.3 | 1910                             | 191                              | 228                              | 77             | 1771              | 148                              | 27                               | 51.8                             | 21.4           |                   |
| UPN 220    | 220        | 80  | 9              | 12.5           | 12.5           | 6.5            | 40   | 8     | 3740            | 29.4 | 2690                             | 245                              | 292                              | 84.8           | 2062              | 197                              | 33.6                             | 64.1                             | 23             |                   |
| UPN 240    | 240        | 85  | 9.5            | 13             | 13             | 6.5            | 42.5 | 8     | 4230            | 33.2 | 3600                             | 300                              | 358                              | 92.2           | 2371              | 248                              | 39.6                             | 75.7                             | 24.2           |                   |
| UPN 260    | 260        | 90  | 10             | 14             | 14             | 7              | 45   | 8     | 4830            | 37.9 | 4820                             | 371                              | 442                              | 99.9           | 2712              | 317                              | 47.7                             | 91.6                             | 25.6           |                   |
| UPN 280    | 280        | 95  | 10             | 15             | 15             | 7.5            | 47.5 | 8     | 5330            | 41.8 | 6280                             | 448                              | 532                              | 109            | 2928              | 399                              | 57.2                             | 109                              | 27.4           |                   |
| UPN 300    | 300        | 100 | 10             | 16             | 16             | 8              | 50   | 8     | 5880            | 46.2 | 8030                             | 535                              | 632                              | 117            | 3177              | 495                              | 67.8                             | 130                              | 29             |                   |
| UPN 320    | 320        | 100 | 14             | 17.5           | 17.5           | 8.75           | 43   | 5     | 7580            | 59.5 | 10870                            | 679                              | 826                              | 121            | 4711              | 597                              | 80.6                             | 152                              | 28.1           |                   |
| UPN 350    | 350        | 100 | 14             | 16             | 16             | 8              | 43   | 5     | 7730            | 60.6 | 12840                            | 734                              | 918                              | 129            | 5084              | 570                              | 75                               | 143                              | 27.2           |                   |
| UPN 400    | 400        | 110 | 14             | 18             | 18             | 9              | 48   | 5     | 9150            | 71.8 | 20350                            | 1020                             | 1240                             | 149            | 5855              | 846                              | 102                              | 190                              | 30.4           |                   |

