



**BAOLF STEEL GROUP**

**天津市明洋金属制品有限公司**  
**Tianjin Baolf Steel Co., Limited**

<http://www.tbfsteel.com>



# Content

## 目录

|    |                                                  |    |                                                    |
|----|--------------------------------------------------|----|----------------------------------------------------|
| 01 | 公司介绍<br>Company Introduction                     | 26 | 钢板桩<br>JIS U-shaped Steel Sheet Pile               |
| 02 | 质量保障体系<br>Quality Assurance System               | 27 | 扁钢<br>Flat Steel Bar                               |
| 03 | 企业资质<br>Enterprise Qualification                 | 29 | C型钢<br>Steel C Channel                             |
| 04 | 热轧H型钢<br>Hot Rolled Steel H Beam                 | 30 | 黑钢管/镀锌钢管<br>Black Steel Pipe/Galvanized Steel Pipe |
| 06 | 欧标IPE型钢<br>European Standard IPE Beam            | 31 | 无缝钢管<br>Seamless Steel Pipe                        |
| 08 | 欧标IPEAA型钢<br>European Standard IPEAA Beam        | 33 | 方/矩管<br>Square and Rectangular Hollow Section      |
| 09 | 热轧工字型钢<br>Hot Rolled Steel I Beam                | 34 | 螺旋焊管<br>Spiral Welded Steel Pipe                   |
| 10 | 美标H型钢<br>America Standard W Beam                 | 36 | 盘条<br>Steel Wire Rod                               |
| 17 | 欧标H型钢(HEA/HEB)<br>European Standard HEA/HEB Beam | 37 | 花纹板<br>Steel Checker Plate                         |
| 21 | 等边角钢<br>Hot Rolled Equal Angle Bar               | 37 | 钢板<br>Carbon Steel Plate                           |
| 22 | 不等边角钢<br>Hot Rolled Unequal Angle Bar            | 38 | 合作客户<br>Our Clients                                |
| 23 | 热轧槽钢<br>Hot Rolled Steel U Channel               | 38 | 工程案例<br>Project Cases                              |
| 25 | 欧标槽钢(UPN)<br>European Standard UPN Channel       |    |                                                    |

# Company Introduction

天津市明洋金属制品有限公司  
Tianjin Baolf Steel Co.,Limited

| Steel History      | Annual Output          | Production Lines   | Annual Production Capacity     |
|--------------------|------------------------|--------------------|--------------------------------|
| <b>24</b><br>Years | <b>800,000</b><br>Tons | <b>20</b><br>Lines | <b>1.1BILLION</b><br>US DOLLAR |



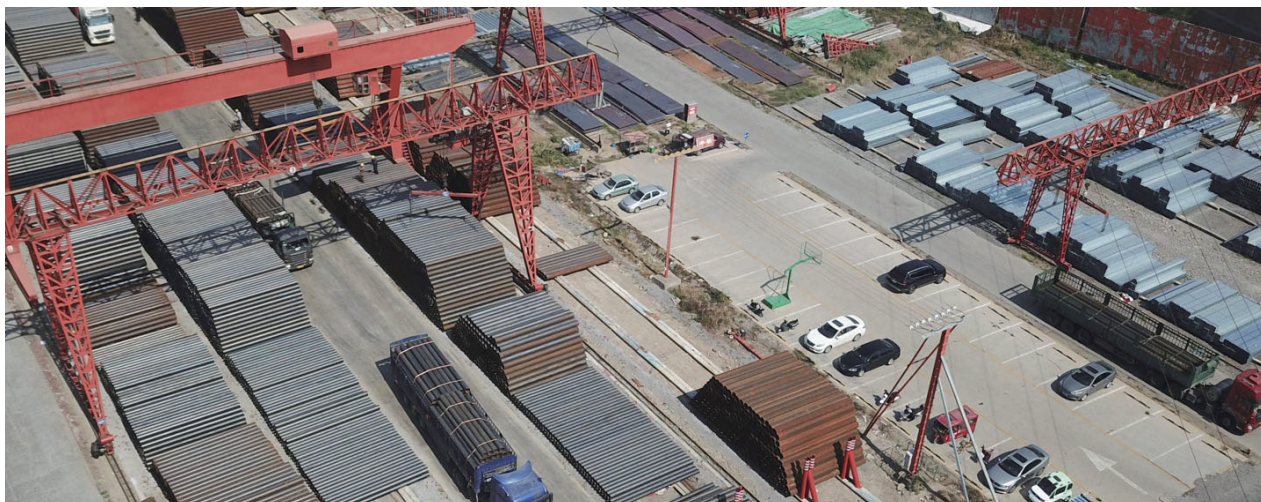
## COMPANY PROFILE

In 1995, Jin Iron & Steel Group (State Owned) built Tianjin Baolf Steel Co., Ltd Making steel pipes, steel angles and channels. Our factory covers an area Square meters, and owns 10 production lines for steel pipes and 10 production lines for profile steel. Our annual production capacity is 800,000 tons steel.

In order to ensure product quality and delivery time, we inspect the products very carefully,And own a truck transport company.

We are experienced in exporting products to the UAE,Europe,Japan,Southeast Asia and North America. Hope we can have the chance to provide you with our best service and high-quality products.

Faith and sincerity will be the most important things you get from us, and we can Cooperate with you equally, favorably and friendly.





# Quality Assurance System



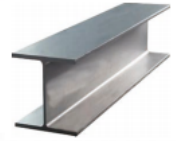


## Enterprise Qualification



# Hot Rolled Steel H Beam

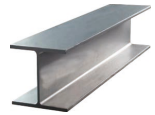
Standard: ASTM A36 JIS G3192 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B



| Size      | JIS<br>KG/M | GB/T<br>11263-98<br>KG/M | Dimensions<br>(mm) |     |      |      |
|-----------|-------------|--------------------------|--------------------|-----|------|------|
|           |             |                          | D                  | Bf  | Tw   | Tf   |
| H 100X100 | 16.9        | 17.2                     | 100                | 100 | 6.0  | 8.0  |
| H 125X125 | 23.6        | 23.8                     | 125                | 125 | 6.5  | 9.0  |
| H 148X100 | 20.7        | 21.4                     | 148                | 100 | 6.0  | 9.0  |
| H 150X75  | 14.0        | 14.3                     | 150                | 75  | 5.00 | 7.0  |
| H 150X150 | 31.1        | 31.9                     | 150                | 150 | 7.0  | 10.0 |
| H 175X175 | 40.4        | 40.3                     | 175                | 175 | 7.5  | 11.0 |
| H 194X150 | 29.9        | 31.2                     | 194                | 150 | 6.0  | 9.0  |
| H 198X99  | 17.8        | 18.5                     | 199                | 99  | 4.5  | 7.0  |
| H 200X100 | 20.9        | 21.7                     | 200                | 100 | 5.5  | 8.0  |
| H 200X200 | 49.9        | 50.5                     | 200                | 200 | 8.0  | 12.0 |
| H 200X204 | 56.2        | 56.7                     | 200                | 204 | 12.0 | 12.0 |
| H 244X175 | 43.6        | 44.1                     | 244                | 175 | 7.0  | 11.0 |
| H 248X124 | 25.1        | 25.8                     | 248                | 124 | 5.0  | 8.0  |
| H 250X125 | 29.0        | 29.7                     | 250                | 125 | 6.0  | 9.0  |
| H 250X250 | 71.8        | 72.4                     | 250                | 250 | 9.0  | 14.0 |
| H 250X255 | 81.6        | 82.2                     | 250                | 255 | 14.0 | 14.0 |
| H 294X200 | 55.8        | 57.3                     | 294                | 200 | 8.0  | 12.0 |
| H 294X302 | 83.4        | 85                       | 294                | 302 | 12.0 | 12.0 |
| H 298X149 | 32.0        | 32.6                     | 298                | 149 | 5.5  | 8.0  |
| H 298X201 | 64.4        | 65.4                     | 298                | 201 | 9.0  | 14.0 |
| H 300X150 | 36.7        | 37.3                     | 300                | 150 | 6.5  | 9.0  |

# Hot Rolled Steel H Beam

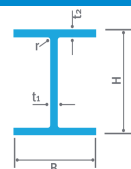
Standard: ASTM A36 JIS G3192 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B



| Size      | JIS<br>KG/M | GB/T<br>11263-98<br>KG/M | Dimensions<br>(mm) |     |      |      |
|-----------|-------------|--------------------------|--------------------|-----|------|------|
|           |             |                          | D                  | Bf  | Tw   | Tf   |
| H 300X300 | 93.0        | 94.5                     | 300                | 300 | 10.0 | 15.0 |
| H 300X305 | 105         | 106                      | 300                | 305 | 15.0 | 15.0 |
| H 340X250 | 78.1        | 79.7                     | 340                | 250 | 9.0  | 14.0 |
| H 344X348 | 113         | 115                      | 344                | 348 | 10.0 | 16.0 |
| H 346X174 | 41.2        | 41.8                     | 346                | 174 | 6.0  | 9.0  |
| H 350X175 | 49.4        | 50                       | 350                | 175 | 7.0  | 11.0 |
| H 350X350 | 135         | 137                      | 350                | 350 | 12.0 | 19.0 |
| H 388X402 | 140         | 141                      | 388                | 402 | 15.0 | 15.0 |
| H 390X300 | 105         | 107                      | 390                | 300 | 10.0 | 16.0 |
| H 394X398 | 147         | 147                      | 394                | 398 | 11.0 | 18.0 |
| H 428X407 | 283         | 284                      | 428                | 407 | 20.0 | 35.0 |
| H 446X199 | 65.1        | 66.7                     | 446                | 199 | 8.0  | 12.0 |
| H 450X200 | 74.9        | 76.5                     | 450                | 200 | 9.0  | 14.0 |
| H 482X300 | 111         | 115                      | 482                | 300 | 11.0 | 15.0 |
| H 488X300 | 125         | 129                      | 488                | 300 | 11.0 | 18.0 |
| H 496X199 | 77.9        | 79.5                     | 496                | 199 | 9.0  | 14.0 |
| H 500X200 | 88.2        | 89.6                     | 500                | 200 | 10.0 | 16.0 |
| H 506X201 | 102         | 103                      | 506                | 201 | 11.0 | 19.0 |

# European Standard IPE Beam

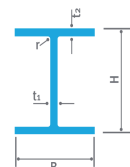
Standard: EN10034:1997 EN10163-3: 2004



| Designation |   | Unit Weight (kg/m) | Standard Sectional Dimension (mm) |       |     |      |      | Sectional Area (cm <sup>2</sup> ) |
|-------------|---|--------------------|-----------------------------------|-------|-----|------|------|-----------------------------------|
|             |   | W                  | H                                 | B     | t1  | t2   | r    | A                                 |
| IPE80       | A | 5                  | 78                                | 46.0  | 3.3 | 4.2  | 5.0  | 6.38                              |
|             | - | 6                  | 80                                | 46.0  | 3.8 | 5.2  | 5.0  | 7.64                              |
| IPE100      | A | 6.9                | 98                                | 55.0  | 3.6 | 4.7  | 7.0  | 8.8                               |
|             | - | 8.1                | 100                               | 55.0  | 4.1 | 5.7  | 7.0  | 10.3                              |
| IPE120      | A | 8.66               | 117.6                             | 64.0  | 3.8 | 5.1  | 7.0  | 11.03                             |
|             | - | 10.4               | 120.0                             | 64.0  | 4.4 | 6.3  | 7.0  | 13.21                             |
| IPE140      | A | 10.5               | 137.4                             | 73.0  | 3.8 | 5.6  | 7.0  | 13.39                             |
|             | - | 12.9               | 140.0                             | 73.0  | 4.7 | 6.9  | 7.0  | 16.43                             |
| IPE160      | A | 12.7               | 157.0                             | 82.0  | 4.0 | 5.9  | 9.0  | 16.18                             |
|             | - | 15.8               | 160.0                             | 82.0  | 5.0 | 7.4  | 9.0  | 20.09                             |
| IPE180      | A | 15.4               | 177.0                             | 91.0  | 4.3 | 6.5  | 9.0  | 19.58                             |
|             | - | 18.8               | 180.0                             | 91.0  | 5.3 | 8.0  | 9.0  | 23.95                             |
|             | O | 21.3               | 182.0                             | 92.0  | 6.0 | 9.0  | 9.0  | 27.10                             |
| IPE200      | A | 18.4               | 197.0                             | 100.0 | 4.5 | 7.0  | 12.0 | 23.47                             |
|             | - | 22.4               | 200.0                             | 100.0 | 5.6 | 8.5  | 12.0 | 28.48                             |
|             | O | 25.1               | 202.0                             | 102.0 | 6.2 | 9.5  | 12.0 | 31.96                             |
| IPE220      | A | 22.2               | 217.0                             | 110.0 | 5.0 | 7.7  | 12.0 | 28.26                             |
|             | - | 26.2               | 220.0                             | 110.0 | 5.9 | 9.2  | 12.0 | 33.37                             |
|             | O | 29.4               | 222.0                             | 112.0 | 6.6 | 10.2 | 12.0 | 37.39                             |
| IPE240      | A | 26.2               | 237.0                             | 120.0 | 5.2 | 8.3  | 15.0 | 33.31                             |
|             | - | 30.7               | 240.0                             | 120.0 | 6.2 | 9.8  | 15.0 | 39.12                             |
|             | O | 34.3               | 242.0                             | 122.0 | 7.0 | 10.8 | 15.0 | 43.71                             |
| IPE270      | A | 30.7               | 267.0                             | 135.0 | 5.5 | 8.7  | 15.0 | 39.15                             |
|             | - | 36.1               | 270.0                             | 135.0 | 6.6 | 10.2 | 15.0 | 45.95                             |
|             | O | 42.3               | 274.0                             | 136.0 | 7.5 | 12.2 | 15.0 | 53.84                             |

# European Standard IPE Beam

Standard: EN10034:1997 EN10163-3: 2004

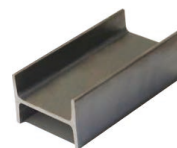


| Designation |   | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |       |      |      |      | Sectional Area<br>(cm <sup>2</sup> ) |
|-------------|---|-----------------------|--------------------------------------|-------|------|------|------|--------------------------------------|
|             |   | W                     | H                                    | B     | t1   | t2   | r    | A                                    |
| IPE300      | A | 36.5                  | 297.0                                | 150.0 | 6.1  | 9.2  | 15.0 | 46.53                                |
|             | - | 42.2                  | 300.0                                | 150.0 | 7.1  | 10.7 | 15.0 | 53.81                                |
|             | O | 49.3                  | 304.0                                | 152.0 | 8.0  | 12.7 | 15.0 | 62.83                                |
| IPE330      | A | 43.0                  | 327.0                                | 160.0 | 6.5  | 10.0 | 18.0 | 54.74                                |
|             | - | 49.2                  | 330.0                                | 160.0 | 7.5  | 11.5 | 18.0 | 62.61                                |
|             | O | 57.0                  | 334.0                                | 162.0 | 8.5  | 13.5 | 18.0 | 72.62                                |
| IPE360      | A | 50.2                  | 357.6                                | 170.0 | 6.6  | 11.5 | 18.0 | 63.96                                |
|             | - | 57.1                  | 360.0                                | 170.0 | 8.0  | 12.7 | 18.0 | 72.73                                |
| IPE400      | A | 57.4                  | 397.0                                | 180.0 | 7.0  | 12.0 | 21.0 | 73.10                                |
|             | - | 66.3                  | 400.0                                | 180.0 | 8.6  | 13.5 | 21.0 | 84.46                                |
|             | O | 75.7                  | 404.0                                | 182.0 | 9.7  | 15.5 | 21.0 | 96.39                                |
| IPE450      | A | 67.2                  | 447.0                                | 190.0 | 7.6  | 13.1 | 21.0 | 85.55                                |
|             | - | 77.6                  | 450.0                                | 190.0 | 9.4  | 14.6 | 21.0 | 98.82                                |
|             | O | 92.4                  | 456.0                                | 192.0 | 11.0 | 17.6 | 21.0 | 117.7                                |
| IPE500      | A | 79.4                  | 497.0                                | 200.0 | 8.4  | 14.5 | 21.0 | 101.1                                |
|             | - | 90.7                  | 500.0                                | 200.0 | 10.2 | 16.0 | 21.0 | 115.5                                |
|             | O | 107                   | 506.0                                | 202.0 | 12.0 | 19.0 | 21.0 | 136.7                                |
| IPE550      | A | 92.1                  | 547.0                                | 210.0 | 9.0  | 15.7 | 24.0 | 117.3                                |
|             | - | 106                   | 550.0                                | 210.0 | 11.1 | 17.2 | 24.0 | 134.4                                |
|             | O | 123                   | 556.0                                | 212.0 | 12.7 | 20.0 | 24.0 | 156.1                                |
| IPE600      | A | 108                   | 597.0                                | 220.0 | 9.8  | 17.5 | 24.0 | 137.0                                |
|             | - | 122                   | 600.0                                | 220.0 | 12.0 | 19.0 | 24.0 | 156.0                                |
|             | O | 154                   | 610.0                                | 224.0 | 15.0 | 24.0 | 24.0 | 196.8                                |



# European Standard IPE AA Beam

Standard: EN10025 S235JR S275JR



| Size     | Depth x Flange width<br>mm | Web Thickness<br>mm | Flange Thickness<br>mm | Weight<br>kg/m |
|----------|----------------------------|---------------------|------------------------|----------------|
| IPEAA80  | 80x46                      | 3.2                 | 4.2                    | 4.95           |
| IPEAA100 | 100x55                     | 3.6                 | 4.5                    | 6.72           |
| IPEAA120 | 120x64                     | 3.8                 | 4.8                    | 8.36           |
| IPEAA140 | 140x73                     | 3.8                 | 5.2                    | 10.05          |
| IPEAA160 | 160x82                     | 4.0                 | 5.6                    | 12.31          |
| IPEAA180 | 180x91                     | 4.3                 | 6.2                    | 14.94          |
| IPEAA200 | 200x100                    | 4.5                 | 6.7                    | 17.95          |
| IPEAA220 | 220x110                    | 4.7                 | 7.4                    | 21.19          |



# Hot Rolled Steel I Beam

Standard: ASTM A36 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B

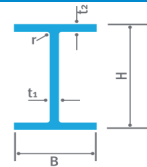


| Size | H<br>mm | Tolerance<br>mm | B<br>mm | Tolerance<br>mm | Thickness<br>mm | Tolerance<br>mm | Weight<br>kg/m |
|------|---------|-----------------|---------|-----------------|-----------------|-----------------|----------------|
| 8#   | 80      | ±2.0            | 50      | ±2.0            | 4.5             | ±0.5            | 7.520          |
| 10#  | 100     | ±2.0            | 68      | ±2.0            | 4.5             | ±0.5            | 11.261         |
| 12#  | 120     | ±2.0            | 74      | ±2.0            | 5.0             | ±0.5            | 13.987         |
| 14#  | 140     | ±2.0            | 80      | ±2.0            | 5.5             | ±0.5            | 16.890         |
| 16#  | 160     | ±2.0            | 88      | ±2.5            | 6.0             | ±0.5            | 20.513         |
| 18#  | 180     | ±2.0            | 94      | ±2.5            | 6.5             | ±0.5            | 24.143         |
| 20A  | 200     | ±3.0            | 100     | ±3.0            | 7.0             | ±0.7            | 27.929         |
| 20B  | 200     | ±3.0            | 102     | ±3.0            | 9.0             | ±0.7            | 31.069         |
| 22A  | 220     | ±3.0            | 110     | ±3.0            | 7.5             | ±0.7            | 33.070         |
| 22B  | 220     | ±3.0            | 112     | ±3.0            | 9.5             | ±0.7            | 36.524         |
| 25A  | 250     | ±3.0            | 116     | ±3.0            | 8.0             | ±0.7            | 38.050         |
| 25B  | 250     | ±3.0            | 118     | ±3.0            | 10              | ±0.7            | 42.030         |
| 28A  | 280     | ±3.0            | 122     | ±3.0            | 8.5             | ±0.7            | 43.492         |
| 28B  | 280     | ±3.0            | 124     | ±3.0            | 10.5            | ±0.7            | 47.888         |
| 30A  | 300     | ±3.0            | 126     | ±3.0            | 9.0             | ±0.7            | 48.084         |
| 30B  | 300     | ±3.0            | 128     | ±3.0            | 11              | ±0.7            | 52.794         |



# America Standard W Beam

Standard: ASTM A6-2014

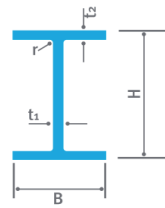


| Designation | Unit Weight<br>(lbs/ft) | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |     |      |      |      | Sectional Area<br>(cm <sup>2</sup> ) |
|-------------|-------------------------|-----------------------|--------------------------------------|-----|------|------|------|--------------------------------------|
|             | W                       | M                     | H                                    | B   | t1   | t2   | r    | A                                    |
| W4×4        | 13                      | 19.3                  | 106                                  | 103 | 7.1  | 8.8  | 7.6  | 24.90                                |
| W5×5        | 16                      | 23.8                  | 127                                  | 127 | 6.1  | 9.1  | 7.6  | 30.26                                |
|             | 19                      | 28.1                  | 131                                  | 128 | 6.9  | 10.9 | 7.6  | 35.88                                |
| W6×4        | 8.5                     | 13                    | 148                                  | 100 | 4.3  | 4.9  | 7.6  | 16.25                                |
|             | 9                       | 13.5                  | 150                                  | 100 | 4.3  | 5.5  | 7.6  | 17.48                                |
|             | 12                      | 18                    | 153                                  | 102 | 5.8  | 7.1  | 7.6  | 22.99                                |
|             | 16                      | 24                    | 160                                  | 102 | 6.6  | 10.3 | 7.6  | 30.76                                |
| W6×6        | 15                      | 22.5                  | 152                                  | 152 | 5.8  | 6.6  | 7.6  | 28.63                                |
|             | 20                      | 29.8                  | 157                                  | 153 | 6.6  | 9.3  | 7.6  | 38.10                                |
|             | 25                      | 37.1                  | 162                                  | 154 | 8.1  | 11.6 | 7.6  | 47.57                                |
| W8×4        | 10                      | 15                    | 200                                  | 100 | 4.3  | 5.2  | 7.6  | 19.08                                |
|             | 13                      | 19.3                  | 203                                  | 102 | 5.8  | 6.5  | 7.6  | 24.72                                |
|             | 15                      | 22.5                  | 206                                  | 102 | 6.2  | 8.0  | 7.6  | 28.60                                |
| W8×5¼       | 14                      | 21.4                  | 203                                  | 134 | 5.0  | 6.4  | 7.6  | 27.21                                |
|             | 18                      | 26.6                  | 207                                  | 133 | 5.8  | 8.4  | 7.6  | 33.93                                |
|             | 21                      | 31.3                  | 210                                  | 134 | 6.4  | 10.2 | 7.6  | 39.97                                |
| W8×6½       | 24                      | 35.9                  | 201                                  | 165 | 6.2  | 10.2 | 10.2 | 45.78                                |
|             | 28                      | 41.7                  | 205                                  | 166 | 7.2  | 11.8 | 10.2 | 53.11                                |
| W8×8        | 31                      | 46.1                  | 203                                  | 203 | 7.2  | 11.0 | 10.2 | 58.62                                |
|             | 35                      | 52                    | 206                                  | 204 | 7.9  | 12.6 | 10.2 | 66.52                                |
|             | 40                      | 59                    | 210                                  | 205 | 9.1  | 14.2 | 10.2 | 75.60                                |
|             | 48                      | 71                    | 216                                  | 206 | 10.2 | 17.4 | 10.2 | 91.05                                |
|             | 58                      | 86                    | 222                                  | 209 | 13.0 | 20.6 | 10.2 | 110.5                                |
|             | 67                      | 100                   | 229                                  | 210 | 14.5 | 23.7 | 10.2 | 126.8                                |



# America Standard W Beam

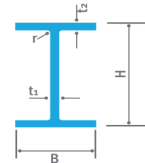
Standard: ASTM A6-2014



| Designation | Unit Weight<br>(lbs/ft) | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |     |      |      |      | Sectional Area<br>(cm <sup>2</sup> ) |
|-------------|-------------------------|-----------------------|--------------------------------------|-----|------|------|------|--------------------------------------|
|             | W                       | M                     | H                                    | B   | t1   | t2   | r    | A                                    |
| W10×4       | 12                      | 17.9                  | 251                                  | 101 | 4.8  | 5.3  | 7.6  | 22.68                                |
|             | 15                      | 22.3                  | 254                                  | 102 | 5.8  | 6.9  | 7.6  | 28.43                                |
|             | 17                      | 25.3                  | 257                                  | 102 | 6.1  | 8.4  | 7.6  | 32.26                                |
|             | 19                      | 28.4                  | 260                                  | 102 | 6.4  | 10.0 | 7.6  | 36.28                                |
| W10×5¼      | 22                      | 32.7                  | 258                                  | 146 | 6.1  | 9.1  | 7.6  | 41.73                                |
|             | 26                      | 38.5                  | 262                                  | 147 | 6.6  | 11.2 | 7.6  | 49.17                                |
|             | 30                      | 44.8                  | 266                                  | 148 | 7.6  | 13.0 | 7.6  | 57.10                                |
| W10×8       | 33                      | 49.1                  | 247                                  | 202 | 7.4  | 11.0 | 12.7 | 62.53                                |
|             | 39                      | 58                    | 252                                  | 203 | 8.0  | 13.5 | 12.7 | 74.14                                |
|             | 45                      | 67                    | 257                                  | 204 | 8.9  | 15.7 | 12.7 | 85.38                                |
| W10×10      | 49                      | 73                    | 253                                  | 254 | 8.6  | 14.2 | 12.7 | 92.9                                 |
|             | 54                      | 80                    | 256                                  | 255 | 9.4  | 15.6 | 12.7 | 102.0                                |
|             | 60                      | 89                    | 260                                  | 256 | 10.7 | 17.3 | 12.7 | 114.0                                |
|             | 68                      | 101                   | 264                                  | 257 | 11.9 | 19.6 | 12.7 | 129.0                                |
|             | 77                      | 115                   | 269                                  | 259 | 13.5 | 22.1 | 12.7 | 146.1                                |
|             | 88                      | 131                   | 275                                  | 261 | 15.4 | 25.1 | 12.7 | 166.9                                |
|             | 100                     | 149                   | 282                                  | 263 | 17.3 | 28.4 | 12.7 | 189.5                                |
|             | 112                     | 167                   | 289                                  | 265 | 19.2 | 31.8 | 12.7 | 212.8                                |
| W12×4       | 14                      | 21                    | 303                                  | 101 | 5.1  | 5.7  | 7.6  | 26.83                                |
|             | 16                      | 23.8                  | 305                                  | 101 | 5.6  | 6.7  | 7.6  | 30.37                                |
|             | 19                      | 28.3                  | 309                                  | 102 | 6.0  | 8.9  | 7.6  | 36.06                                |
|             | 22                      | 32.7                  | 313                                  | 102 | 6.6  | 10.8 | 7.6  | 41.83                                |
| W12×6½      | 26                      | 38.7                  | 310                                  | 165 | 5.8  | 9.7  | 7.6  | 49.35                                |
|             | 30                      | 44.5                  | 313                                  | 166 | 6.6  | 11.2 | 7.6  | 56.80                                |
|             | 35                      | 52                    | 317                                  | 167 | 7.6  | 13.2 | 7.6  | 66.60                                |
| W12×8       | 40                      | 60                    | 303                                  | 203 | 7.5  | 13.1 | 15.2 | 76.03                                |
|             | 45                      | 67                    | 306                                  | 204 | 8.5  | 14.6 | 15.2 | 85.19                                |
|             | 50                      | 74                    | 310                                  | 205 | 9.4  | 16.3 | 15.2 | 94.92                                |

# America Standard W Beam

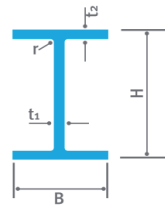
Standard: ASTM A6-2014



| Designation | Unit Weight<br>(lbs/ft) | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |     |      |      |      | Sectional Area<br>(cm <sup>2</sup> ) |
|-------------|-------------------------|-----------------------|--------------------------------------|-----|------|------|------|--------------------------------------|
|             | W                       | M                     | H                                    | B   | t1   | t2   | r    | A                                    |
| W12×10      | 53                      | 79                    | 306                                  | 254 | 8.8  | 14.6 | 15.2 | 100.5                                |
|             | 58                      | 86                    | 310                                  | 254 | 9.1  | 16.3 | 15.2 | 110.1                                |
| W12×12      | 65                      | 97                    | 308                                  | 305 | 9.9  | 15.4 | 15.2 | 123.3                                |
|             | 72                      | 107                   | 311                                  | 306 | 10.9 | 17.0 | 15.2 | 136.2                                |
|             | 79                      | 117                   | 314                                  | 307 | 11.9 | 18.7 | 15.2 | 149.7                                |
|             | 87                      | 129                   | 318                                  | 308 | 13.1 | 20.6 | 15.2 | 165.2                                |
|             | 96                      | 143                   | 323                                  | 309 | 14.0 | 22.9 | 15.2 | 182.2                                |
|             | 106                     | 158                   | 327                                  | 310 | 15.5 | 25.1 | 15.2 | 200.8                                |
|             | 120                     | 179                   | 333                                  | 313 | 18.0 | 28.1 | 15.2 | 227.7                                |
|             | 136                     | 202                   | 341                                  | 315 | 20.1 | 31.8 | 15.2 | 258.0                                |
|             | 152                     | 226                   | 348                                  | 317 | 22.1 | 35.6 | 15.2 | 288.9                                |
|             | 161                     | 240                   | 353                                  | 318 | 23.0 | 37.7 | 15.2 | 305.8                                |
|             | 170                     | 253                   | 356                                  | 319 | 24.4 | 39.6 | 15.2 | 322.5                                |
|             | 190                     | 283                   | 365                                  | 322 | 26.9 | 44.1 | 15.2 | 360.4                                |
|             | 210                     | 313                   | 374                                  | 325 | 30.0 | 48.3 | 15.2 | 398.9                                |
|             | 230                     | 342                   | 382                                  | 328 | 32.6 | 52.6 | 15.2 | 436.8                                |
|             | 252                     | 375                   | 391                                  | 330 | 35.4 | 57.2 | 15.2 | 477.9                                |
|             | 279                     | 415                   | 403                                  | 334 | 38.9 | 62.7 | 15.2 | 528.4                                |
|             | 305                     | 454                   | 415                                  | 336 | 41.3 | 68.7 | 15.2 | 578.4                                |
| W14×5       | 22                      | 32.9                  | 349                                  | 127 | 5.8  | 8.5  | 10.2 | 41.74                                |
|             | 26                      | 39                    | 353                                  | 128 | 6.5  | 10.7 | 10.2 | 49.77                                |
| W14×6¾      | 30                      | 44.6                  | 352                                  | 171 | 6.9  | 9.8  | 10.2 | 57.29                                |
|             | 34                      | 51                    | 355                                  | 171 | 7.2  | 11.6 | 10.2 | 64.53                                |
|             | 38                      | 58                    | 358                                  | 172 | 7.9  | 13.1 | 10.2 | 72.18                                |
| W14×8       | 43                      | 64                    | 347                                  | 203 | 7.7  | 13.5 | 15.2 | 81.46                                |
|             | 48                      | 72                    | 350                                  | 204 | 8.6  | 15.1 | 15.2 | 91.12                                |
|             | 53                      | 79                    | 354                                  | 205 | 9.4  | 16.8 | 15.2 | 100.8                                |
| W14×10      | 61                      | 91                    | 353                                  | 254 | 9.5  | 16.4 | 15.2 | 115.7                                |
|             | 68                      | 101                   | 357                                  | 255 | 10.5 | 18.3 | 15.2 | 128.9                                |

# America Standard W Beam

Standard:ASTM A6-2014

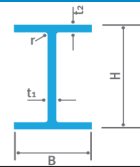


| Designation | Unit Weight<br>(Ibs/ft) | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |     |      |      |      | Sectional Area<br>(cm <sup>2</sup> ) |
|-------------|-------------------------|-----------------------|--------------------------------------|-----|------|------|------|--------------------------------------|
|             | W                       | M                     | H                                    | B   | t1   | t    | r    | A                                    |
| W14×10      | 74                      | 110                   | 360                                  | 256 | 11.4 | 19.9 | 15.2 | 140.3                                |
|             | 82                      | 122                   | 363                                  | 257 | 13.0 | 21.7 | 15.2 | 155.3                                |
| W14×14½     | 90                      | 134                   | 356                                  | 369 | 11.2 | 18.0 | 15.2 | 170.6                                |
|             | 99                      | 147                   | 360                                  | 370 | 12.3 | 19.8 | 15.2 | 187.9                                |
|             | 109                     | 162                   | 364                                  | 371 | 13.3 | 21.8 | 15.2 | 206.3                                |
|             | 120                     | 179                   | 368                                  | 373 | 15.0 | 23.9 | 15.2 | 228.1                                |
|             | 132                     | 196                   | 372                                  | 374 | 16.4 | 26.2 | 15.2 | 250.4                                |
| W14×16      | 145                     | 216                   | 375                                  | 394 | 17.3 | 27.7 | 15.2 | 275.5                                |
|             | 159                     | 237                   | 380                                  | 395 | 18.9 | 30.2 | 15.2 | 301.3                                |
|             | 176                     | 262                   | 387                                  | 398 | 21.1 | 33.3 | 15.2 | 334.2                                |
|             | 193                     | 287                   | 393                                  | 399 | 22.6 | 36.6 | 15.2 | 366.4                                |
|             | 211                     | 314                   | 399                                  | 400 | 24.9 | 39.6 | 15.2 | 399.5                                |
|             | 233                     | 347                   | 407                                  | 404 | 27.2 | 43.7 | 15.2 | 441.8                                |
|             | 257                     | 382                   | 416                                  | 406 | 29.8 | 48.0 | 15.2 | 487.4                                |
|             | 283                     | 421                   | 425                                  | 409 | 32.8 | 52.6 | 15.2 | 537.4                                |
|             | 311                     | 463                   | 435                                  | 412 | 35.8 | 57.4 | 15.2 | 589.7                                |
|             | 342                     | 509                   | 446                                  | 416 | 39.1 | 62.7 | 15.2 | 648.2                                |
|             | 370                     | 551                   | 455                                  | 418 | 42.0 | 67.6 | 15.2 | 702.2                                |
| W16×5½      | 26                      | 38.8                  | 399                                  | 140 | 6.4  | 8.8  | 10.2 | 49.86                                |
|             | 31                      | 46.1                  | 403                                  | 140 | 7.0  | 11.2 | 10.2 | 58.99                                |
| W16×7       | 36                      | 53                    | 403                                  | 177 | 7.5  | 10.9 | 10.2 | 68.14                                |
|             | 40                      | 60                    | 407                                  | 178 | 7.7  | 12.8 | 10.2 | 75.73                                |
|             | 45                      | 67                    | 410                                  | 179 | 8.8  | 14.4 | 10.2 | 85.88                                |
|             | 50                      | 75                    | 413                                  | 180 | 9.7  | 16.0 | 10.2 | 95.32                                |
|             | 57                      | 85                    | 417                                  | 181 | 10.9 | 18.2 | 10.2 | 108.2                                |
| W16×10¼     | 67                      | 100                   | 415                                  | 260 | 10.0 | 16.9 | 10.2 | 126.9                                |
|             | 77                      | 114                   | 420                                  | 261 | 11.6 | 19.3 | 10.2 | 146.0                                |
|             | 89                      | 132                   | 425                                  | 263 | 13.3 | 22.2 | 10.2 | 168.5                                |
|             | 100                     | 149                   | 431                                  | 265 | 14.9 | 25.0 | 10.2 | 190.1                                |



# America Standard W Beam

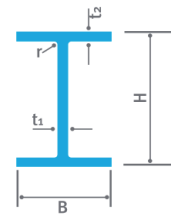
Standard: ASTM A6-2014



| Designation | Unit Weight<br>(lbs/ft) | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |     |      |      |      | Sectional Area<br>(cm <sup>2</sup> ) |
|-------------|-------------------------|-----------------------|--------------------------------------|-----|------|------|------|--------------------------------------|
|             | W                       | M                     | H                                    | B   | t1   | t2   | r    | A                                    |
| W18×6       | 35                      | 52                    | 450                                  | 152 | 7.6  | 10.8 | 10.2 | 66.34                                |
|             | 40                      | 60                    | 455                                  | 153 | 8.0  | 13.3 | 10.2 | 75.79                                |
|             | 46                      | 68                    | 459                                  | 154 | 9.1  | 15.4 | 10.2 | 87.23                                |
| W18×7½      | 41                      | 61                    | 450                                  | 189 | 8.1  | 10.8 | 10.2 | 76.56                                |
|             | 45                      | 67                    | 454                                  | 190 | 8.5  | 12.7 | 10.2 | 85.52                                |
|             | 50                      | 74                    | 457                                  | 190 | 9.0  | 14.5 | 10.2 | 94.62                                |
|             | 55                      | 82                    | 460                                  | 191 | 9.9  | 16.0 | 10.2 | 104.5                                |
|             | 60                      | 89                    | 463                                  | 192 | 10.5 | 17.7 | 10.2 | 113.8                                |
|             | 65                      | 97                    | 466                                  | 193 | 11.4 | 19.1 | 10.2 | 123.3                                |
|             | 66                      | 98                    | 467                                  | 193 | 11.4 | 19.6 | 10.2 | 125.3                                |
|             | 71                      | 106                   | 469                                  | 194 | 12.6 | 20.6 | 10.2 | 134.7                                |
| W18×11      | 76                      | 113                   | 463                                  | 280 | 10.8 | 17.3 | 10.2 | 144.1                                |
|             | 86                      | 128                   | 467                                  | 282 | 12.2 | 19.6 | 10.2 | 163.5                                |
|             | 97                      | 144                   | 472                                  | 283 | 13.6 | 22.1 | 10.2 | 184.2                                |
|             | 106                     | 158                   | 476                                  | 284 | 15.0 | 23.9 | 10.2 | 201.1                                |
|             | 119                     | 177                   | 482                                  | 286 | 16.6 | 26.9 | 10.2 | 225.9                                |
|             | 130                     | 193                   | 489                                  | 283 | 17.0 | 30.5 | 10.2 | 246.6                                |
|             | 143                     | 213                   | 495                                  | 285 | 18.5 | 33.5 | 10.2 | 271.0                                |
|             | 158                     | 235                   | 501                                  | 287 | 20.6 | 36.6 | 10.2 | 299.1                                |
|             | 175                     | 260                   | 509                                  | 289 | 22.6 | 40.4 | 10.2 | 331.1                                |
|             | 192                     | 286                   | 517                                  | 291 | 24.4 | 44.4 | 10.2 | 363.8                                |
|             | 211                     | 315                   | 525                                  | 293 | 26.9 | 48.5 | 10.2 | 400.7                                |
|             | 234                     | 349                   | 535                                  | 296 | 29.5 | 53.6 | 10.2 | 444.3                                |
|             | 258                     | 384                   | 545                                  | 299 | 32.5 | 58.4 | 10.2 | 489.3                                |
|             | 283                     | 421                   | 555                                  | 302 | 35.6 | 63.5 | 10.2 | 536.8                                |
|             | 311                     | 464                   | 567                                  | 305 | 38.6 | 69.6 | 10.2 | 590.4                                |
| W21×6½      | 44                      | 66                    | 525                                  | 165 | 8.9  | 11.4 | 12.7 | 83.71                                |
|             | 50                      | 74                    | 529                                  | 166 | 9.7  | 13.6 | 12.7 | 95.19                                |
|             | 57                      | 85                    | 535                                  | 166 | 10.3 | 16.5 | 12.7 | 108.0                                |
| W21×8¼      | 48                      | 72                    | 524                                  | 207 | 8.9  | 10.9 | 12.7 | 91.09                                |
|             | 55                      | 82                    | 528                                  | 209 | 9.6  | 13.2 | 12.7 | 104.7                                |
|             | 62                      | 92                    | 533                                  | 209 | 10.2 | 15.6 | 12.7 | 117.9                                |
|             | 68                      | 101                   | 537                                  | 210 | 10.9 | 17.4 | 12.7 | 129.2                                |

# America Standard W Beam

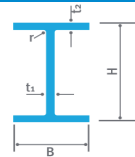
Standard: ASTM A6-2014



| Designation | Unit Weight<br>(lbs/ft) | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |     |      |      |      | Sectional Area<br>(cm <sup>2</sup> ) |
|-------------|-------------------------|-----------------------|--------------------------------------|-----|------|------|------|--------------------------------------|
|             | W                       | M                     | H                                    | B   | t1   | t2   | r    | A                                    |
| W21×8¼      | 73                      | 109                   | 539                                  | 211 | 11.6 | 18.8 | 12.7 | 138.8                                |
|             | 83                      | 123                   | 544                                  | 212 | 13.1 | 21.2 | 12.7 | 157.1                                |
|             | 93                      | 138                   | 549                                  | 214 | 14.7 | 23.6 | 12.7 | 176.1                                |
| W21×12¼     | 101                     | 150                   | 543                                  | 312 | 12.7 | 20.3 | 12.7 | 191.9                                |
|             | 111                     | 165                   | 546                                  | 313 | 14.0 | 22.2 | 12.7 | 210.8                                |
|             | 122                     | 182                   | 551                                  | 315 | 15.2 | 24.4 | 12.7 | 231.2                                |
|             | 132                     | 196                   | 554                                  | 316 | 16.5 | 26.3 | 12.7 | 250.4                                |
|             | 147                     | 219                   | 560                                  | 318 | 18.3 | 29.2 | 12.7 | 278.8                                |
|             | 166                     | 248                   | 571                                  | 315 | 19.1 | 34.5 | 12.7 | 315.0                                |
|             | 182                     | 272                   | 577                                  | 317 | 21.1 | 37.6 | 12.7 | 346.0                                |
|             | 201                     | 300                   | 585                                  | 319 | 23.1 | 41.4 | 12.7 | 381.9                                |
|             | 223                     | 332                   | 593                                  | 322 | 25.4 | 45.5 | 12.7 | 421.8                                |
|             | 248                     | 369                   | 603                                  | 325 | 28.3 | 50.5 | 12.7 | 471.2                                |
|             | 275                     | 409                   | 613                                  | 327 | 31.0 | 55.6 | 12.7 | 521.0                                |
|             | 300                     | 446                   | 623                                  | 330 | 33.5 | 60.5 | 12.7 | 568.8                                |
|             | 333                     | 496                   | 635                                  | 333 | 37.1 | 66.5 | 12.7 | 631.2                                |
| W24×7       | 55                      | 82                    | 599                                  | 178 | 10.0 | 12.8 | 12.7 | 104.2                                |
|             | 62                      | 92                    | 603                                  | 179 | 10.9 | 15.0 | 12.7 | 117.5                                |
| W24×9       | 68                      | 101                   | 603                                  | 228 | 10.5 | 14.9 | 12.7 | 129.4                                |
|             | 76                      | 113                   | 608                                  | 228 | 11.2 | 17.3 | 12.7 | 144.6                                |
|             | 84                      | 125                   | 612                                  | 229 | 11.9 | 19.6 | 12.7 | 159.4                                |
|             | 94                      | 140                   | 617                                  | 230 | 13.1 | 22.2 | 12.7 | 178.7                                |
|             | 103                     | 153                   | 623                                  | 229 | 14.0 | 24.9 | 12.7 | 195.5                                |
| W24×12¾     | 104                     | 155                   | 611                                  | 324 | 12.7 | 19.1 | 16.5 | 198.8                                |
|             | 117                     | 174                   | 616                                  | 325 | 14.0 | 21.6 | 16.5 | 223.0                                |
|             | 131                     | 195                   | 622                                  | 327 | 15.4 | 24.4 | 16.5 | 249.9                                |
|             | 146                     | 217                   | 628                                  | 328 | 16.5 | 27.7 | 16.5 | 278.4                                |
|             | 162                     | 241                   | 635                                  | 329 | 17.9 | 31.0 | 16.5 | 308.9                                |
|             | 176                     | 262                   | 641                                  | 327 | 19.1 | 34.0 | 16.5 | 334.4                                |
|             | 192                     | 285                   | 647                                  | 329 | 20.6 | 37.1 | 16.5 | 364.4                                |
|             | 207                     | 307                   | 653                                  | 330 | 22.1 | 39.9 | 16.5 | 392.8                                |
|             | 229                     | 341                   | 661                                  | 333 | 24.4 | 43.9 | 16.5 | 434.5                                |
|             | 250                     | 372                   | 669                                  | 335 | 26.4 | 48.0 | 16.5 | 475.1                                |
|             | 279                     | 415                   | 679                                  | 338 | 29.5 | 53.1 | 16.5 | 530.2                                |
|             | 306                     | 455                   | 689                                  | 340 | 32.0 | 57.9 | 16.5 | 580.1                                |

# America Standard W Beam

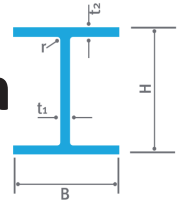
Standard: ASTM A6-2014



| Designation                        | Unit Weight<br>(lbs/ft) | Unit Weight<br>(kg/m) | Standard Sectional Dimension<br>(mm) |     |       |       |      | Sectional Area<br>(cm <sup>2</sup> ) |
|------------------------------------|-------------------------|-----------------------|--------------------------------------|-----|-------|-------|------|--------------------------------------|
|                                    | W                       | M                     | H                                    | B   | t1    | t2    | r    | A                                    |
| W24×12 <sup>3</sup> / <sub>4</sub> | 335                     | 498                   | 699                                  | 343 | 35.1  | 63.0  | 16.5 | 636.2                                |
|                                    | 370                     | 551                   | 711                                  | 347 | 38.6  | 69.1  | 16.5 | 702.9                                |
| W27×10                             | 84                      | 125                   | 678                                  | 253 | 11.7  | 16.3  | 15.2 | 160.0                                |
|                                    | 94                      | 140                   | 684                                  | 254 | 12.4  | 18.9  | 15.2 | 178.0                                |
|                                    | 102                     | 152                   | 688                                  | 254 | 13.1  | 21.1  | 15.2 | 194.0                                |
|                                    | 114                     | 170                   | 693                                  | 256 | 14.5  | 23.6  | 15.2 | 216.4                                |
|                                    | 129                     | 192                   | 702                                  | 254 | 15.5  | 27.9  | 15.2 | 244.0                                |
| W27×14                             | 146                     | 217                   | 695                                  | 355 | 15.4  | 24.8  | 15   | 277                                  |
|                                    | 161                     | 240                   | 701                                  | 356 | 16.8  | 27.4  | 15   | 306                                  |
|                                    | 178                     | 265                   | 706                                  | 358 | 18.4  | 30.2  | 15   | 337                                  |
| W30×10 <sup>1</sup> / <sub>2</sub> | 90                      | 134                   | 750                                  | 264 | 11.94 | 15.49 | 28.0 | 174.4                                |
|                                    | 99                      | 147                   | 753                                  | 265 | 13.21 | 17.02 | 28.0 | 192.1                                |
|                                    | 108                     | 161                   | 758                                  | 266 | 13.84 | 19.30 | 28.0 | 209.0                                |
|                                    | 116                     | 173                   | 762                                  | 267 | 14.35 | 21.59 | 28.0 | 225.0                                |
|                                    | 124                     | 185                   | 766                                  | 267 | 14.86 | 23.62 | 28.0 | 239.8                                |
|                                    | 132                     | 196                   | 770                                  | 268 | 15.62 | 25.40 | 28.0 | 255.1                                |
|                                    | 148                     | 220                   | 779                                  | 266 | 16.51 | 29.97 | 28.0 | 285.0                                |
| W30×15                             | 173                     | 257                   | 773                                  | 381 | 16.6  | 27.1  | 17   | 328                                  |
|                                    | 191                     | 284                   | 779                                  | 382 | 18    | 30.1  | 17   | 362                                  |
| W33×11 <sup>1</sup> / <sub>2</sub> | 118                     | 176                   | 835                                  | 292 | 13.97 | 18.80 | 30.0 | 228.7                                |
|                                    | 130                     | 193                   | 840                                  | 292 | 14.73 | 21.72 | 30.0 | 252.2                                |
|                                    | 141                     | 210                   | 846                                  | 293 | 15.37 | 24.38 | 30.0 | 273.1                                |
|                                    | 152                     | 226                   | 851                                  | 294 | 16.13 | 26.80 | 30.0 | 293.8                                |
|                                    | 169                     | 251                   | 859                                  | 292 | 17.02 | 30.99 | 30.0 | 324.4                                |
| W36×12                             | 135                     | 201                   | 903                                  | 304 | 15.24 | 20.07 | 30.0 | 261.1                                |
|                                    | 150                     | 223                   | 911                                  | 304 | 15.88 | 23.88 | 30.0 | 290.0                                |
|                                    | 160                     | 238                   | 915                                  | 305 | 16.51 | 25.91 | 30.0 | 308.1                                |
|                                    | 170                     | 253                   | 919                                  | 306 | 17.27 | 27.94 | 30.0 | 327.5                                |
|                                    | 182                     | 271                   | 923                                  | 307 | 18.42 | 29.97 | 30.0 | 350.5                                |
|                                    | 194                     | 289                   | 927                                  | 308 | 19.43 | 32.00 | 30.0 | 372.3                                |
|                                    | 210                     | 313                   | 932                                  | 309 | 21.08 | 34.54 | 30.0 | 403.3                                |
|                                    | 232                     | 345                   | 943                                  | 308 | 22.10 | 39.88 | 30.0 | 444.0                                |

# European Standard HEA/HEB Beam

Standard: EN10034:1997 EN10163-3: 2004



| Size  |    | Weight<br>Kg/m | Dimensions (mm) |       |      |      |      | Sectional Area(cm²) |
|-------|----|----------------|-----------------|-------|------|------|------|---------------------|
|       |    |                | H               | B     | t1   | t2   | r    | A                   |
| HE100 | A  | 16.7           | 96.0            | 100.0 | 5.0  | 8.0  | 12.0 | 21.24               |
|       | B  | 20.4           | 100.0           | 100.0 | 6.0  | 10.0 | 12.0 | 26.04               |
|       | M  | 41.8           | 120.0           | 106.0 | 12.0 | 20.0 | 12.0 | 53.24               |
| HE120 | A  | 19.9           | 114.0           | 120.0 | 5.0  | 8.0  | 12.0 | 25.34               |
|       | B  | 26.7           | 120.0           | 120.0 | 6.5  | 11.0 | 12.0 | 34.01               |
|       | M  | 52.1           | 140.0           | 126.0 | 12.5 | 21.0 | 12.0 | 66.41               |
| HE140 | A  | 24.7           | 133.0           | 140.0 | 5.5  | 8.5  | 12.0 | 31.42               |
|       | B  | 33.7           | 140.0           | 140.0 | 7.0  | 12.0 | 12.0 | 42.96               |
|       | M  | 63.2           | 160.0           | 146.0 | 13.0 | 22.0 | 12.0 | 80.56               |
| HE160 | A  | 30.4           | 152.0           | 160.0 | 6.0  | 9.0  | 15.0 | 38.77               |
|       | B  | 42.6           | 160.0           | 160.0 | 8.0  | 13.0 | 15.0 | 54.25               |
|       | M  | 76.2           | 180.0           | 166.0 | 14.0 | 23.0 | 15.0 | 97.05               |
| HE180 | A  | 35.5           | 171.0           | 180.0 | 6.0  | 9.5  | 15.0 | 45.25               |
|       | B  | 51.2           | 180.0           | 180.0 | 8.5  | 14.0 | 15.0 | 65.25               |
|       | M  | 88.9           | 200.0           | 186.0 | 14.5 | 24.0 | 15.0 | 113.3               |
| HE200 | A  | 42.3           | 190.0           | 200.0 | 6.5  | 10.0 | 18.0 | 53.83               |
|       | B  | 61.3           | 200.0           | 200.0 | 9.0  | 15.0 | 18.0 | 78.08               |
|       | M  | 103            | 220.0           | 206.0 | 15.0 | 25.0 | 18.0 | 131.3               |
| HE220 | A  | 50.5           | 210.0           | 220.0 | 7.0  | 11.0 | 18.0 | 64.34               |
|       | B  | 71.5           | 220.0           | 220.0 | 9.5  | 16.0 | 18.0 | 91.04               |
|       | M  | 117            | 240.0           | 226.0 | 15.5 | 26.0 | 18.0 | 149.4               |
| HE240 | AA | 47.4           | 224.0           | 240.0 | 6.5  | 9.0  | 21.0 | 60.38               |
|       | A  | 60.3           | 230.0           | 240.0 | 7.5  | 12.0 | 21.0 | 76.84               |
|       | B  | 83.2           | 240.0           | 240.0 | 10.0 | 17.0 | 21.0 | 106.0               |
|       | M  | 157            | 270.0           | 248.0 | 18.0 | 32.0 | 21.0 | 199.6               |
| HE260 | AA | 54.1           | 244.0           | 260.0 | 6.5  | 9.5  | 24.0 | 68.97               |
|       | A  | 68.2           | 250.0           | 260.0 | 7.5  | 12.5 | 24.0 | 86.82               |
|       | B  | 92.9           | 260.0           | 260.0 | 10.0 | 17.5 | 24.0 | 118.4               |



# European Standard HEA/HEB Beam

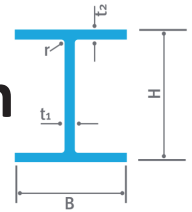
Standard: EN10034:1997 EN10163-3: 2004



| Size  |    | Weight<br>Kg/m | Dimensions (mm) |       |      |      |      | Sectional Area(cm²) |
|-------|----|----------------|-----------------|-------|------|------|------|---------------------|
|       |    |                | H               | B     | t1   | t2   | r    | A                   |
| HE260 | M  | 172            | 290.0           | 268.0 | 18.0 | 32.5 | 24.0 | 219.6               |
| HE280 | AA | 61.3           | 264.0           | 280.0 | 7.0  | 10.0 | 24.0 | 78.02               |
|       | A  | 76.4           | 270.0           | 280.0 | 8.0  | 13.0 | 24.0 | 97.26               |
|       | B  | 103            | 280.0           | 280.0 | 10.5 | 18.0 | 24.0 | 31.4                |
|       | M  | 189            | 310.0           | 288.0 | 18.5 | 33.0 | 24.0 | 240.2               |
| HE300 | AA | 69.8           | 283.0           | 300.0 | 7.5  | 10.5 | 27.0 | 88.91               |
|       | A  | 88.3           | 290.0           | 300.0 | 8.5  | 14.0 | 27.0 | 112.5               |
|       | B  | 117            | 300.0           | 300.0 | 11.0 | 19.0 | 27.0 | 149.1               |
|       | M  | 238            | 340.0           | 310.0 | 21.0 | 39.0 | 27.0 | 303.1               |
| HE320 | AA | 74.3           | 301.0           | 300.0 | 8.0  | 11.0 | 27.0 | 94.58               |
|       | A  | 97.7           | 310.0           | 300.0 | 9.0  | 15.5 | 27.0 | 124.4               |
|       | B  | 127            | 320.0           | 300.0 | 11.5 | 20.5 | 27.0 | 161.3               |
|       | M  | 245            | 359.0           | 309.0 | 21.0 | 40.0 | 27.0 | 312.0               |
| HE340 | AA | 78.9           | 320.0           | 300.0 | 8.5  | 11.5 | 27.0 | 100.5               |
|       | A  | 105            | 330.0           | 300.0 | 9.5  | 16.5 | 27.0 | 133.5               |
|       | B  | 134            | 340.0           | 300.0 | 12.0 | 21.5 | 27.0 | 170.9               |
|       | M  | 248            | 377.0           | 309.0 | 21.0 | 40.0 | 27.0 | 315.8               |
| HE360 | AA | 83.7           | 339.0           | 300.0 | 9.0  | 12.0 | 27.0 | 106.6               |
|       | A  | 112            | 350.0           | 300.0 | 10.0 | 17.5 | 27.0 | 142.8               |
|       | B  | 142            | 360.0           | 300.0 | 12.5 | 22.5 | 27.0 | 180.6               |
|       | M  | 250            | 395.0           | 308.0 | 21.0 | 40.0 | 27.0 | 318.8               |
| HE400 | AA | 92.4           | 378.0           | 300.0 | 9.5  | 13.0 | 27.0 | 117.7               |
|       | A  | 125            | 390.0           | 300.0 | 11.0 | 19.0 | 27.0 | 159.0               |
|       | B  | 155            | 400.0           | 300.0 | 13.5 | 24.0 | 27.0 | 197.8               |
|       | M  | 256            | 432.0           | 307.0 | 21.0 | 40.0 | 27.0 | 325.8               |

# European Standard HEA/HEB Beam

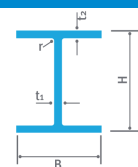
Standard: EN10034:1997 EN10163-3: 2004



| Size  |    | Weight<br>Kg/m | Dimensions (mm) |       |      |      |      | Sectional Area(cm <sup>2</sup> ) |
|-------|----|----------------|-----------------|-------|------|------|------|----------------------------------|
|       |    |                | H               | B     | t1   | t2   | r    | A                                |
| HE450 | AA | 99.8           | 425.0           | 300.0 | 10.0 | 13.5 | 27.0 | 127.1                            |
|       | A  | 140            | 440.0           | 300.0 | 11.5 | 21.0 | 27.0 | 178.0                            |
|       | B  | 171            | 450.0           | 300.0 | 14.0 | 26.0 | 27.0 | 218.0                            |
|       | M  | 263            | 478.0           | 307.0 | 21.0 | 40.0 | 27.0 | 335.4                            |
| HE500 | AA | 107            | 472.0           | 300.0 | 10.5 | 14.0 | 27.0 | 136.9                            |
|       | A  | 155            | 490.0           | 300.0 | 12.0 | 23.0 | 27.0 | 197.5                            |
|       | B  | 187            | 500.0           | 300.0 | 14.5 | 28.0 | 27.0 | 238.6                            |
|       | M  | 270            | 524.0           | 306.0 | 21.0 | 40.0 | 27.0 | 344.3                            |
| HE550 | AA | 120            | 522.0           | 300.0 | 11.5 | 15.0 | 27.0 | 152.8                            |
|       | A  | 166            | 540.0           | 300.0 | 12.5 | 24.0 | 27.0 | 211.8                            |
|       | B  | 199            | 550.0           | 300.0 | 15.0 | 29.0 | 27.0 | 254.1                            |
|       | M  | 278            | 572.0           | 306.0 | 21.0 | 40.0 | 27.0 | 354.4                            |
| HE600 | AA | 129            | 571.0           | 300.0 | 12.0 | 15.5 | 27.0 | 164.1                            |
|       | A  | 178            | 590.0           | 300.0 | 13.0 | 25.0 | 27.0 | 226.5                            |
|       | B  | 212            | 600.0           | 300.0 | 15.5 | 30.0 | 27.0 | 270.0                            |
|       | M  | 286            | 620.0           | 305.0 | 21.0 | 40.0 | 27.0 | 363.7                            |
| HE650 | AA | 138            | 620.0           | 300.0 | 12.5 | 16.0 | 27.0 | 175.8                            |
|       | A  | 190            | 640.0           | 300.0 | 13.5 | 26.0 | 27.0 | 241.6                            |
|       | B  | 225            | 650.0           | 300.0 | 16.0 | 31.0 | 27.0 | 286.3                            |
|       | M  | 293            | 668.0           | 305.0 | 21.0 | 40.0 | 27.0 | 373.7                            |
| HE700 | AA | 150            | 670.0           | 300.0 | 13.0 | 17.0 | 27.0 | 190.9                            |
|       | A  | 204            | 690.0           | 300.0 | 14.5 | 27.0 | 27.0 | 260.5                            |
|       | B  | 241            | 700.0           | 300.0 | 17.0 | 32.0 | 27.0 | 306.4                            |
|       | M  | 301            | 716.0           | 304.0 | 21.0 | 40.0 | 27.0 | 383.0                            |

# European Standard HEA/HEB Beam

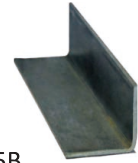
Standard: EN10034:1997 EN10163-3: 2004



| Size   |    | Weight<br>Kg/m | Dimensions (mm) |       |      |      |      | Sectional Area(cm <sup>2</sup> ) |
|--------|----|----------------|-----------------|-------|------|------|------|----------------------------------|
|        |    |                | H               | B     | t1   | t2   | r    | A                                |
| HE800  | AA | 172            | 770.0           | 300.0 | 14.0 | 18.0 | 30.0 | 218.5                            |
|        | A  | 224            | 790.0           | 300.0 | 15.0 | 28.0 | 30.0 | 285.8                            |
|        | B  | 262            | 800.0           | 300.0 | 17.5 | 33.0 | 30.0 | 334.2                            |
|        | M  | 317            | 814.0           | 303.0 | 21.0 | 40.0 | 30.0 | 404.3                            |
| HE900  | AA | 198            | 870.0           | 300.0 | 15.0 | 20.0 | 30.0 | 252.2                            |
|        | A  | 252            | 890.0           | 300.0 | 16.0 | 30.0 | 30.0 | 320.5                            |
|        | B  | 291            | 900.0           | 300.0 | 18.5 | 35.0 | 30.0 | 371.3                            |
|        | M  | 333            | 910.0           | 302.0 | 21.0 | 40.0 | 30.0 | 423.6                            |
| HE1000 | AA | 222            | 970.0           | 300.0 | 16.0 | 21.0 | 30.0 | 282.2                            |
|        | A  | 272            | 990.0           | 300.0 | 16.5 | 31.0 | 30.0 | 346.8                            |
|        | B  | 314            | 1000.0          | 300.0 | 19.0 | 36.0 | 30.0 | 400.0                            |
|        | M  | 349            | 1008.0          | 302.0 | 21.0 | 40.0 | 30.0 | 444.2                            |



# Hot Rolled Equal Angle Bar



Standard: ASTM A36 JIS G3192 SS400 Q235 S235JR ASTM A572 Gr.60 GR.50 S355JR Q345B

| Size    | Weight<br>kg/m | Size<br>mm | Weight<br>kg/m | Size<br>mm | Weight<br>kg/m |
|---------|----------------|------------|----------------|------------|----------------|
| 25X25X3 | 1.124          | 75X75X5    | 5.818          | 125X125X12 | 22.696         |
| 25X25X4 | 1.459          | 75X75X6    | 6.905          | 125X125X14 | 26.193         |
| 30X30X3 | 1.373          | 75X75X7    | 7.976          | 130X130X9  | 17.9           |
| 30X30X4 | 1.786          | 75X75X8    | 9.030          | 130X130X15 | 23.4           |
| 40X40X3 | 1.852          | 75X75X10   | 11.089         | 130X130X15 | 28.8           |
| 40X40X4 | 2.422          | 80X80X6    | 7.376          | 140X140X10 | 21.488         |
| 40X40X5 | 2.976          | 80X80X7    | 8.525          | 140X140X12 | 25.522         |
| 45X45X3 | 2.088          | 80X80X8    | 9.658          | 150X150X12 | 27.3           |
| 45X45X4 | 2.736          | 80X80X10   | 11.874         | 150X150X15 | 33.6           |
| 45X45X5 | 3.369          | 90X90X6    | 8.350          | 160X160X12 | 29.391         |
| 50X50X3 | 2.332          | 90X90X7    | 9.656          | 160X160X14 | 33.987         |
| 50X50X4 | 3.059          | 90X90X8    | 10.946         | 160X160X16 | 38.518         |
| 50X50X5 | 3.770          | 90X90X10   | 13.476         | 180X180X12 | 33.159         |
| 50X50X6 | 4.465          | 100X100X6  | 9.366          | 180X180X14 | 38.383         |
| 63X63X5 | 4.822          | 100X100X7  | 10.830         | 180X180X16 | 43.542         |
| 63X63X6 | 5.721          | 100X100X8  | 12.276         | 180X180X18 | 48.634         |
| 63X63X8 | 7.469          | 100X100X10 | 15.120         | 200X200X14 | 42.894         |
| 70X70X5 | 5.397          | 100X100X12 | 17.898         | 200X200X16 | 48.680         |
| 70X70X6 | 6.406          | 110X110X10 | 16.690         | 200X200X18 | 54.401         |
| 70X70X7 | 7.398          | 125X125X8  | 15.504         | 200X200X20 | 60.056         |
| 70X70X8 | 8.373          | 125X125X10 | 19.133         | 200X200X24 | 71.168         |



# Hot Rolled Unequal Angle Bar



Standard: ASTM A36 JIS G3192 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B

| Size       | Weight<br>kg/m | Size<br>mm | Weight<br>kg/m |
|------------|----------------|------------|----------------|
| 75X50X6    | 5.670          | 125X75X10  | 15.000         |
| 75X50X8    | 7.350          | 125X75X12  | 17.800         |
| 100X75X6   | 8.040          | 150X75X8   | 15.900         |
| 100X75X7   | 9.320          | 150X75X10  | 19.500         |
| 100X75X8   | 10.600         | 150X90X8   | 13.120         |
| 100X75X9   | 11.800         | 150X90X10  | 16.400         |
| 100X75X10  | 13.000         | 150X90X12  | 18.200         |
| 100X75X12  | 15.400         | 150X90X15  | 21.500         |
| 125X75X7   | 10.700         | 150X100X8  | 21.200         |
| 125X75X8   | 12.200         | 150X100X10 | 26.000         |
| 125X75X9   | 13.600         | 150X100X12 | 30.800         |
| 160X100X10 | 19.872         | 180X110X14 | 30.589         |
| 160X100X12 | 23.592         | 180X110X16 | 34.649         |
| 160X100X14 | 27.247         | 200X125X12 | 29.761         |
| 160X100X16 | 30.835         | 200X125X14 | 34.436         |
| 180X110X10 | 22.272         | 200X125X16 | 39.045         |
| 180X110X12 | 26.464         | 200X125X18 | 43.588         |



# Hot Rolled Steel U Channel

Standard: ASTM A36 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B

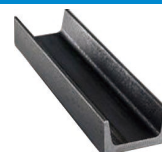


| Size | Depth x<br>Flange width<br>mm | Web<br>Tolerance<br>mm | Flange<br>Tolerance<br>mm | Weight<br>kg/m |
|------|-------------------------------|------------------------|---------------------------|----------------|
| U50  | 50X25                         | 3.00-5.00              | 6.00                      | 2.37~3.46      |
| U75  | 75X40                         | 3.80                   | 7.00                      | 5.30           |
| U75  | 75X40                         | 4.00                   | 7.00                      | 5.60           |
| U75  | 75X40                         | 4.50                   | 7.00                      | 5.85           |
| U75  | 75X40                         | 5.00                   | 7.00                      | 6.92           |
| U100 | 100X50                        | 3.80                   | 6.00                      | 7.30           |
| U100 | 100X50                        | 4.20                   | 6.00                      | 8.03           |
| U100 | 100X50                        | 4.50                   | 7.50                      | 8.97           |
| U100 | 100X50                        | 5.00                   | 7.50                      | 9.36           |
| U125 | 125X65                        | 5.20                   | 6.80                      | 11.66          |
| U125 | 125X65                        | 5.30                   | 6.80                      | 12.17          |
| U125 | 125X65                        | 5.50                   | 8.00                      | 12.91          |
| U125 | 125X65                        | 6.00                   | 8.00                      | 13.40          |
| U150 | 150X75                        | 5.50                   | 7.30                      | 14.66          |
| U150 | 150X75                        | 5.70                   | 10.00                     | 16.71          |
| U150 | 150X75                        | 6.00                   | 10.00                     | 17.90          |
| U150 | 150X75                        | 6.50                   | 10.00                     | 18.60          |
| U150 | 150X75                        | 9.00                   | 12.50                     | 24.00          |
| U200 | 200X80                        | 7.50                   | 11.00                     | 24.60          |



# Hot Rolled Steel U Channel

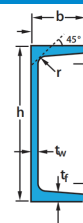
Standard: ASTM A36 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B



| Size | D<br>mm | Tolerance | Bf<br>mm | Tolerance | Thickness | Tolerance | Weight<br>kg/m |
|------|---------|-----------|----------|-----------|-----------|-----------|----------------|
| 5#   | 50      | ±1.5      | 37       | ±1.5      | 4.5       | ±0.4      | 5.438          |
| 6.3# | 63      | ±1.5      | 40       | ±1.5      | 4.8       | ±0.4      | 6.634          |
| 8#   | 80      | ±1.5      | 43       | ±1.5      | 5.0       | ±0.4      | 8.045          |
| 10#  | 100     | ±2.0      | 48       | ±2.0      | 5.3       | ±0.5      | 10.007         |
| 12#  | 120     | ±2.0      | 53       | ±2.0      | 5.5       | ±0.5      | 12.059         |
| 14A# | 140     | ±2.0      | 58       | ±2.0      | 6.0       | ±0.5      | 14.535         |
| 14B# | 140     | ±2.0      | 60       | ±2.0      | 8.0       | ±0.5      | 16.733         |
| 16A# | 160     | ±2.0      | 63       | ±2.5      | 6.5       | ±0.6      | 17.240         |
| 16B# | 160     | ±2.0      | 65       | ±2.5      | 8.5       | ±0.6      | 19.752         |
| 18A# | 180     | ±2.0      | 68       | ±2.5      | 7.0       | ±0.6      | 20.147         |
| 18B# | 180     | ±2.0      | 70       | ±2.5      | 9.0       | ±0.6      | 23.000         |
| 20A# | 200     | ±3.0      | 73       | ±3.0      | 7.0       | ±0.7      | 22.637         |
| 20B# | 200     | ±3.0      | 75       | ±3.0      | 9.0       | ±0.7      | 25.777         |
| 22A# | 220     | ±3.0      | 77       | ±3.0      | 7.0       | ±0.7      | 24.999         |
| 22B# | 220     | ±3.0      | 79       | ±3.0      | 9.0       | ±0.7      | 28.453         |
| 25A# | 250     | ±3.0      | 78       | ±3.0      | 7.0       | ±0.7      | 27.410         |
| 25B# | 250     | ±3.0      | 80       | ±3.0      | 9.0       | ±0.7      | 31.335         |
| 28A# | 280     | ±3.0      | 82       | ±3.0      | 7.5       | ±0.7      | 31.427         |
| 28B# | 280     | ±3.0      | 84       | ±3.0      | 9.5       | ±0.7      | 35.823         |
| 30A# | 300     | ±3.0      | 85       | ±3.0      | 7.5       | ±0.7      | 34.463         |
| 30B# | 300     | ±3.0      | 87       | ±3.0      | 9.5       | ±0.7      | 39.173         |
| 32A# | 320     | ±3.0      | 88       | ±3.5      | 8.0       | ±0.8      | 38.083         |

# European Standard UPN Channel

Standard: EN10206-1:2000 EN10279:2000 EN10163-3:2004



| Size   | Weight<br>Kg/m | Dimensions<br>mm |     |      |      |      |
|--------|----------------|------------------|-----|------|------|------|
|        |                | H                | B   | Tw   | Tf   | r    |
| UPN50  | 5.59           | 50               | 38  | 5.0  | 7.0  | 7.0  |
| UPN65  | 7.09           | 65               | 42  | 5.5  | 7.5  | 7.5  |
| UPN80  | 8.64           | 80               | 45  | 6.0  | 8.0  | 8.0  |
| UPN100 | 10.6           | 100              | 50  | 6.0  | 8.5  | 8.5  |
| UPN120 | 13.4           | 120              | 55  | 7.0  | 9.0  | 9.0  |
| UPN140 | 16.0           | 140              | 60  | 7.0  | 10.0 | 10.0 |
| UPN160 | 18.8           | 160              | 65  | 7.5  | 10.5 | 10.5 |
| UPN180 | 22.0           | 180              | 70  | 8.0  | 11.0 | 11.0 |
| UPN200 | 25.3           | 200              | 75  | 8.5  | 11.5 | 11.5 |
| UPN220 | 29.4           | 220              | 80  | 9.0  | 12.5 | 12.5 |
| UPN240 | 33.2           | 240              | 85  | 9.5  | 13.0 | 13.0 |
| UPN260 | 37.9           | 260              | 90  | 10.0 | 14.0 | 14.0 |
| UPN280 | 41.8           | 280              | 95  | 10.0 | 15.0 | 15.0 |
| UPN300 | 46.2           | 300              | 100 | 10.0 | 16.0 | 16.0 |
| UPN320 | 59.5           | 320              | 100 | 14.0 | 17.5 | 17.5 |
| UPN350 | 60.6           | 350              | 100 | 14.0 | 16.0 | 16.0 |
| UPN380 | 63.1           | 380              | 102 | 13.5 | 16.0 | 16.0 |
| UPN400 | 71.8           | 400              | 110 | 14.0 | 18.0 | 18.0 |

# JIS U-shaped Steel Sheet Pile

Grade:JISA 5523 JISA 5528



| Size    | Dimension  |             |                | Per Pieces                      |                                                  |                                                   |               | Per Meter                       |                                                  |                                                   |                             |
|---------|------------|-------------|----------------|---------------------------------|--------------------------------------------------|---------------------------------------------------|---------------|---------------------------------|--------------------------------------------------|---------------------------------------------------|-----------------------------|
| Size    | Width (mm) | Height (mm) | Thickness (mm) | Section area (cm <sup>2</sup> ) | Inertia moment I <sub>x</sub> (cm <sup>4</sup> ) | Section modulus W <sub>x</sub> (cm <sup>3</sup> ) | Weight (kg/m) | Section area (cm <sup>2</sup> ) | Inertia moment I <sub>x</sub> (cm <sup>4</sup> ) | Section modulus W <sub>x</sub> (cm <sup>3</sup> ) | Weight (kg/m <sup>2</sup> ) |
| 400x100 | 400        | 100         | 10.5           | 61.18                           | 1240                                             | 152                                               | 48            | 153                             | 8740                                             | 874                                               | 120                         |
| 400x125 | 400        | 125         | 13.0           | 76.42                           | 2220                                             | 223                                               | 60            | 191.0                           | 16800                                            | 1340                                              | 150                         |
| 400x150 | 400        | 150         | 13.0           | 76.4                            | 3060                                             | 278                                               | 60            | 191.0                           | 22600                                            | 1510                                              | 150                         |
| 400x170 | 400        | 170         | 15.5           | 96.99                           | 4670                                             | 362                                               | 76.1          | 242.5                           | 38600                                            | 2270                                              | 190                         |
| 500x200 | 500        | 200         | 24.3           | 133.8                           | 7960                                             | 520                                               | 105           | 267.6                           | 63000                                            | 3150                                              | 210                         |
| 500x225 | 500        | 225         | 27.6           | 153                             | 11400                                            | 680                                               | 120           | 306                             | 86000                                            | 3820                                              | 240                         |
| 600x130 | 600        | 130         | 10.3           | 78.7                            | 2110                                             | 203                                               | 61.8          | 131.2                           | 13000                                            | 1000                                              | 103                         |
| 600x180 | 600        | 180         | 13.4           | 103.9                           | 5220                                             | 376                                               | 81.6          | 173.2                           | 32400                                            | 1800                                              | 136                         |
| 600x210 | 600        | 210         | 18.0           | 135.3                           | 8630                                             | 539                                               | 106           | 225.5                           | 56700                                            | 2700                                              | 177                         |

## Chemical Composition(%)

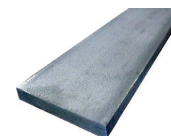
| Standard  | Material | C       | Si      | Mn      | P       | S       | N         | CED     |
|-----------|----------|---------|---------|---------|---------|---------|-----------|---------|
| JISA 5523 | SYW295   | 0.18MAX | 0.55MAX | 1.50MAX | 0.04MAX | 0.04MAX | 0.0060MAX | 0.44MAX |
|           | SYW390   | 0.18MAX | 0.18MAX | 1.50MAX | 0.04MAX | 0.04MAX | 0.0060MAX | 0.46MAX |
| JISA 5528 | SY295    | -       | -       | -       | 0.04MAX | 0.04MAX | -         | -       |
|           | SY390    | -       | -       | -       | 0.04MAX | 0.04MAX | -         | -       |

## Mechanical Properties

| Standard  | Material | Yield Strength (N/mm <sup>2</sup> ) | Tensile Strength (N/mm <sup>2</sup> ) | Elongation (%) | Toughness [(0°C)(J)] |
|-----------|----------|-------------------------------------|---------------------------------------|----------------|----------------------|
| JISA 5523 | SYW295   | 295Min                              | 490Min                                | 17Min          | 43Min                |
|           | SYW390   | 390Min                              | 540Min                                | 15Min          | 43Min                |
| JISA 5528 | SY295    | 295Min                              | 490Min                                | 17Min          | -                    |
|           | SY390    | 390Min                              | 540Min                                | 15Min          | -                    |



# Flat Steel Bar



Grade: ASTM A36 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B

| Width*Thickness<br>mm |         |          |          |
|-----------------------|---------|----------|----------|
| 20x1.5                | 30x5.5  | 50x5.75  | 80x5.75  |
| 20x2.0                | 30x7.25 | 50x7.5   | 80x7.5   |
| 20x2.2                | 30x7.5  | 50x7.75  | 80x7.75  |
| 20x2.5                | 30x7.75 | 50x8.0   | 80x8.0   |
| 20x2.75               | 30x9.25 | 50x9.25  | 80x9.25  |
| 20x3.0                | 30x9.5  | 50x9.5   | 80x9.5   |
| 20x3.25               | 30x9.75 | 50x9.75  | 80x9.75  |
| 20x3.5                | 40x2.0  | 50x11.5  | 80x11.5  |
| 20x3.75               | 40x2.2  | 50x11.75 | 80x11.75 |
| 20x4.0                | 40x2.5  | 60x3.0   | 80x13.5  |
| 20x4.5                | 40x2.75 | 60x3.25  | 100x2.5  |
| 20x4.75               | 40x3.0  | 60x3.5   | 100x2.75 |
| 20x5.25               | 40x3.25 | 60x3.75  | 100x3.0  |
| 20x5.5                | 40x3.5  | 60x4.0   | 100x3.25 |
| 20x5.75               | 40x3.75 | 60x4.25  | 100x3.5  |
| 25x2.0                | 40x4.0  | 60x4.5   | 100x3.75 |
| 25x2.5                | 40x4.25 | 60x4.75  | 100x4.0  |
| 25x2.75               | 40x4.5  | 60x5.0   | 100x4.5  |
| 25x3.0                | 40x4.75 | 60x5.25  | 100x4.75 |
| 25x3.25               | 40x5.0  | 60x5.5   | 100x5.25 |
| 25x3.5                | 40x5.25 | 60x5.75  | 100x5.5  |
| 25x3.75               | 40x5.5  | 60x7.25  | 100x5.75 |
| 25x4.0                | 40x5.75 | 60x7.5   | 100x7.25 |
| 25x4.25               | 40x7.25 | 60x7.75  | 100x7.5  |
| 25x4.5                | 40x7.5  | 60x8.0   | 100x7.75 |

# Flat Steel Bar

Grade:ASTM A36 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B



| Width*Thickness<br>mm |          |          |           |
|-----------------------|----------|----------|-----------|
| 25x4.75               | 40x7.75  | 60x9.25  | 100x8.0   |
| 25x5.0                | 40x9.25  | 60x9.5   | 100x9.25  |
| 25x5.25               | 40x9.5   | 60x9.75  | 100x9.5   |
| 25x5.5                | 40x9.75  | 60x11.5  | 100x9.75  |
| 25x5.75               | 40x11.5  | 60x11.75 | 100x11.5  |
| 30x2.0                | 40x11.75 | 70x4.75  | 100x11.75 |
| 30x2.5                | 50x2.5   | 70x5.25  | 100x13.5  |
| 30x2.75               | 50x2.75  | 70x5.5   | 120x7.5   |
| 30x3.0                | 50x3.0   | 70x5.75  | 120x7.75  |
| 30x3.25               | 50x3.25  | 70x7.25  | 120x9.25  |
| 30x3.5                | 50x3.5   | 70x7.5   | 120x9.5   |
| 30x3.75               | 50x3.75  | 70x7.75  | 120x9.75  |
| 30x4.0                | 50x4.0   | 70x9.25  | 120x11.25 |
| 30x4.25               | 50x4.25  | 70x9.5   | 120x11.75 |
| 30x4.5                | 50x4.5   | 70x9.75  | 120x13.5  |
| 30x4.75               | 50x4.75  | 70x11.5  | 150x9.5   |
| 30x5.0                | 50x5.0   | 70x11.75 | 150x9.75  |
| 30x5.25               | 50x5.25  | 80x5.25  | 150x11.5  |
| 150x13.5              | 50x5.5   | 80x5.5   | 150x11.75 |



# Steel C Channel

Grade: ASTM A36 SS400 Q235 S235JR ASTM A572 GR.50 S355JR Q345B

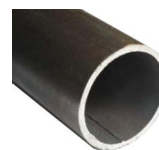


| Size<br>mm | Weight<br>kg/m | Size<br>mm   | Weight<br>kg/m |
|------------|----------------|--------------|----------------|
| 50x37x4.5  | 5.438          | 220x79x9     | 28.453         |
| 63x40x4.8  | 6.634          | 250x78x7     | 27.41          |
| 65x40x4.8  | 6.709          | 250x80x9     | 31.335         |
| 80x43x5    | 8.045          | 250x82x11    | 35.26          |
| 100x48x5.3 | 10.007         | 280x82x7.5   | 31.427         |
| 120x53x5.5 | 12.059         | 280x84x9.5   | 35.823         |
| 126x53x5.5 | 12.318         | 280x86x11.5  | 40.219         |
| 140x58x6   | 14.535         | 300x85x7.5   | 34.463         |
| 140x60x8   | 16.733         | 300x87x9.5   | 39.173         |
| 160x63x6.5 | 17.24          | 300x89x11.5  | 43.883         |
| 160x65x8.5 | 19.752         | 360x96x9     | 47.814         |
| 180x68x7   | 20.174         | 360x98x11    | 53.466         |
| 180x70x9   | 23.000         | 360x100x13   | 59.118         |
| 200x73x7   | 22.637         | 400x100x10.5 | 58.928         |
| 200x75x9   | 25.777         | 400x102x12.5 | 65.208         |
| 220x77x7   | 24.999         | 400x104x14.5 | 71.488         |



# Black Steel Pipe/Galvanized Pipe

Grade:BS1387 ASTM A53 Q235 SS400 S235JR



| Nominal Size(DN) |       |       |     | Thickness | Nominal Size(DN) |       |     | Thickness |
|------------------|-------|-------|-----|-----------|------------------|-------|-----|-----------|
| Extra Light      |       |       |     | (A)Light  |                  |       |     |           |
| mm               | inch  | mm    | mm  | 65        | 2-1/2            | 76.1  | 3.2 |           |
| 15               | 1/2   | 21.3  | 1.8 | 80        | 3                | 88.9  | 3.2 |           |
| 20               | 3/4   | 26.9  | 2.0 | 100       | 4                | 114.3 | 3.6 |           |
| 25               | 1     | 33.7  | 2.0 | 125       | 5                | 139.7 | 3.5 |           |
| 32               | 1-1/4 | 42.4  | 2.0 | 150       | 6                | 165.1 | 3.5 |           |
| 40               | 1-1/2 | 48.3  | 2.3 | (B)Medium |                  |       |     |           |
| 50               | 2     | 60.3  | 2.3 | mm        | inch             |       | mm  |           |
| 65               | 2-1/2 | 76.1  | 2.3 | 15        | 1/2              | 21.3  | 2.6 |           |
| 80               | 3     | 88.9  | 2.6 | 20        | 3/4              | 26.9  | 2.6 |           |
| 100              | 4     | 114.3 | 3.2 | 25        | 1                | 33.7  | 3.2 |           |
| (A)Light         |       |       |     | 32        | 1-1/4            | 42.4  | 3.2 |           |
| mm               | inch  |       | mm  | 40        | 1-1/2            | 48.3  | 3.2 |           |
| 15               | 1/2   | 21.3  | 2.0 | 50        | 2                | 60.3  | 3.6 |           |
| 20               | 3/4   | 26.9  | 2.3 | 65        | 2-1/2            | 76.1  | 3.6 |           |
| 25               | 1     | 33.7  | 2.6 | 80        | 3                | 88.9  | 4.0 |           |
| 32               | 1-1/4 | 42.4  | 2.6 | 100       | 4                | 114.3 | 4.5 |           |
| 40               | 1-1/2 | 48.3  | 2.9 | 125       | 5                | 139.7 | 5.0 |           |
| 50               | 2     | 60.3  | 2.9 | 150       | 6                | 165.1 | 5.0 |           |



# Seamless Steel Pipe

Standard: ASTM A213 ASTM A53 API 5L API 5CT ASTM A106 20#



| Diameter   | OD mm  | 5    | 5S   | 10   | 10S  | 20   | 30    | 40    | 40S  |
|------------|--------|------|------|------|------|------|-------|-------|------|
| 1/8 Inch   | 10.3   |      |      |      |      |      |       | 1.73  |      |
| 1/4 Inch   | 13.7   |      |      |      |      |      |       | 2.24  |      |
| 3/8 Inch   | 17.1   |      |      |      |      |      |       | 2.31  |      |
| 1/2 Inch   | 21.34  | 1.65 | 1.65 | 2.11 | 2.11 |      | 2.41  | 2.77  | 2.77 |
| 3/4 Inch   | 26.67  | 1.65 | 1.65 | 2.11 | 2.11 |      | 2.41  | 2.87  | 2.87 |
| 1 Inch     | 33.4   | 1.65 | 1.65 | 2.11 | 2.11 |      | 2.9   | 3.38  | 3.38 |
| 1 1/4 Inch | 42.16  |      |      |      |      |      |       | 3.56  |      |
| 1 1/2 Inch | 48.26  | 1.65 | 1.65 | 2.77 | 2.77 |      | 3.18  | 3.68  | 3.68 |
| 2 Inch     | 60.33  | 1.65 | 1.65 | 2.77 | 2.77 |      | 3.18  | 3.91  | 3.91 |
| 2 1/2 Inch | 73.02  |      |      |      |      |      |       | 5.16  |      |
| 3 Inch     | 88.9   | 2.11 | 2.11 | 3.05 | 3.05 |      | 4.78  | 5.49  | 5.49 |
| 3 1/2 Inch | 101.6  |      |      |      |      |      |       | 5.74  |      |
| 4 Inch     | 114.3  | 2.11 | 2.11 | 3.05 | 3.05 |      | 4.78  | 6.02  | 6.02 |
| 6 Inch     | 168.28 | 2.77 | 2.77 | 3.4  | 3.4  |      |       | 7.11  | 7.11 |
| 8 Inch     | 219.08 | 2.77 | 2.77 | 3.76 | 3.76 | 6.35 | 7.04  | 8.18  | 8.18 |
| 10 Inch    | 273.05 | 3.4  | 3.4  | 4.19 | 4.19 | 6.35 | 7.8   | 9.27  | 9.27 |
| 12 Inch    | 323.85 | 3.96 | 3.96 | 4.57 | 4.57 | 6.35 | 8.38  | 10.31 | 9.53 |
| 14 Inch    | 355.6  | 3.96 | 3.96 | 6.35 | 4.78 | 7.92 | 9.53  | 11.13 | 9.53 |
| 16 Inch    | 406.4  | 4.19 | 4.19 | 6.35 | 4.78 | 7.92 | 9.53  | 12.7  | 9.53 |
| 18 Inch    | 457.2  | 4.19 | 4.19 | 6.35 | 4.78 | 7.92 | 11.13 | 14.27 | 9.53 |
| 20 Inch    | 508    | 4.78 | 4.78 | 6.35 | 5.54 | 9.53 | 12.7  | 15.09 | 9.53 |
| 22 Inch    | 558.8  | 4.78 | 4.78 | 6.35 | 5.54 | 9.53 | 12.7  |       |      |
| 24 Inch    | 609.6  | 5.54 | 5.54 | 6.35 | 6.35 | 9.53 |       | 17.48 | 9.53 |
| 26 Inch    | 660.4  |      |      | 7.92 |      | 12.7 |       |       |      |
| 28 Inch    | 711.2  |      |      | 7.92 |      | 12.7 |       |       |      |
| 30 Inch    | 762    | 6.35 | 6.35 | 7.92 | 7.92 | 12.7 | 15.88 |       |      |



# Seamless Steel Pipe



Standard: ASTM A213 ASTM A53 API 5L API 5CT ASTM A106 20#

| Diameter   | OD<br>mm | 5    | 5S    | 10    | 10S   | 20    | 30    | 40    | 40S   |
|------------|----------|------|-------|-------|-------|-------|-------|-------|-------|
| 32 Inch    | 812.8    |      |       | 7.92  |       | 12.7  | 15.88 | 17.48 |       |
| 34 Inch    | 863.6    |      |       | 7.92  |       | 12.7  | 15.88 | 17.48 |       |
| 36 Inch    | 914.4    |      |       | 7.92  |       | 12.7  | 15.88 | 19.05 |       |
| 38 Inch    | 965.2    |      |       |       |       |       |       |       |       |
| Diameter   | OD<br>mm | STD  | 60    | 80    | 80S   | XS    | 100   | 120   | 140   |
| 1/8 Inch   | 10.3     |      |       | 2.41  |       |       |       |       |       |
| 1/4 Inch   | 13.7     |      |       | 3.02  |       |       |       |       |       |
| 3/8 Inch   | 17.1     |      |       | 3.20  |       |       |       |       |       |
| 1/2 Inch   | 21.34    | 2.77 |       | 3.73  | 3.73  | 3.73  |       |       |       |
| 3/4 Inch   | 26.67    | 2.87 |       | 3.91  | 3.91  | 3.91  |       |       |       |
| 1 Inch     | 33.4     | 3.38 |       | 4.55  | 4.55  | 4.55  |       |       |       |
| 1 1/4 Inch | 42.16    |      |       | 4.85  |       |       |       |       |       |
| 1 1/2 Inch | 48.26    | 3.68 |       | 5.08  | 5.08  | 5.08  |       |       |       |
| 2 Inch     | 60.33    | 3.91 |       | 5.54  | 5.54  | 5.54  |       |       |       |
| 2 1/2 Inch | 73.02    |      |       | 7.01  |       |       |       |       |       |
| 3 Inch     | 88.9     | 5.49 |       | 7.62  | 7.62  | 7.62  |       |       |       |
| 3 1/2 Inch | 101.6    |      |       | 8.08  |       |       |       |       |       |
| 4 Inch     | 114.3    | 6.02 |       | 8.56  | 8.56  | 8.56  |       | 11.13 |       |
| 6 Inch     | 168.28   | 7.11 |       | 10.97 | 10.97 | 10.97 |       | 14.27 |       |
| 8 Inch     | 219.08   | 8.18 | 10.31 | 12.7  | 12.7  | 12.7  | 15.09 | 18.26 | 20.62 |
| 10 Inch    | 273.05   | 9.27 | 12.7  | 15.09 | 12.7  | 12.7  | 18.26 | 21.44 | 25.4  |
| 12 Inch    | 323.85   | 9.53 | 14.27 | 17.48 | 12.7  | 12.7  | 21.44 | 25.4  | 28.58 |
| 14 Inch    | 355.6    | 9.53 | 15.09 | 19.05 | 12.7  | 12.7  | 23.83 | 27.79 | 31.75 |
| 16 Inch    | 406.4    | 9.53 | 16.66 | 21.44 | 12.7  | 12.7  | 26.19 | 30.96 | 36.53 |
| 18 Inch    | 457.2    | 9.53 | 19.05 | 23.83 | 12.7  | 12.7  | 29.36 | 34.93 | 39.67 |

# Square and Rectangular Hollow Section



Grade: ASTM A500 , EN10025 Q235 SS400 S235JR S355JR A36

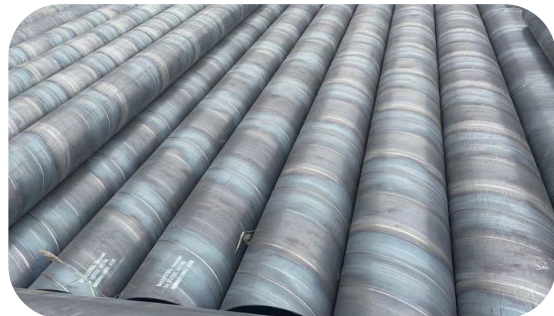
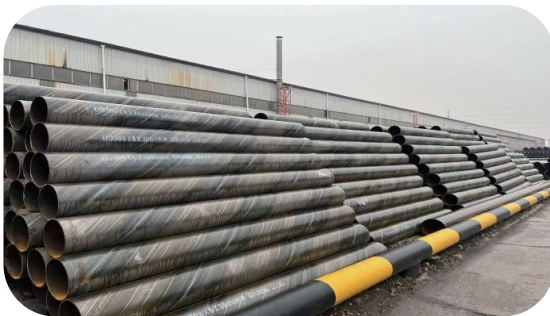
| Size                | Thickness<br>mm | Diameter<br>mm | Thickness<br>mm |
|---------------------|-----------------|----------------|-----------------|
| 25x25               | 1.5-2.5         | 25x50          | 1.7-4.0         |
| 30x30               | 1.5-2.8         | 30x50          | 1.7-4.0         |
| 40x40               | 1.7-4.0         | 30x60          | 1.7-5.0         |
| 50x50               | 1.7-5.0         | 40x50          | 1.7-5.0         |
| 60x60               | 1.8-6.0         | 40x60          | 1.7-5.0         |
| 70x70               | 1.8-6.0         | 40x80          | 1.8-6.0         |
| 75x75               | 1.8-6.0         | 50x100         | 1.8-6.0         |
| 80x80               | 1.8-6.0         | 60x120         | 2.0-6.0         |
| 90x90               | 2.0-6.0         | 50x150         | 2.2-8.0         |
| 100x100             | 2.2-8.0         | 75x125         | 2.2-8.0         |
| 120x120             | 4.0-12.0        | 80x120         | 2.2-8.0         |
| 150x150             | 2.75-12.0       | 80x160         | 4.0-12.0        |
| 160x160             | 4.0-12.0        | 100x200        | 2.75-12.0       |
| 200x200             | 4.0-12.0        | 150x200        | 4.0-12.0        |
| 250x250             | 4.0-12.0        | 150x250        | 4.0-12.0        |
| 300x300             | 5.75-12.0       | 150x300        | 4.0-12.0        |
| 400x400             | 6.0-12.0        | 200x300        | 4.0-12.0        |
| Length: 4-12 meters |                 | 200x400        | 5.75-12.0       |



# Spiral Welded Steel Pipe



|                   |                                                                                               |                  |                  |                 |                  |
|-------------------|-----------------------------------------------------------------------------------------------|------------------|------------------|-----------------|------------------|
| Product Name      | Spiral Welded Steel Pipe                                                                      |                  |                  |                 |                  |
| Standard          | API5L, ASTM A106 Gr.B, ASTM A53 Gr.B, ASTM A270, ASTM A249,<br>ASTM A511,ASTM A778 ,ASTM A312 |                  |                  |                 |                  |
|                   | GB5310-2009,GB3087-2008,GB6479-2013,GB9948-2013,GB/T8163-2008, GB8162-2008,GB/T17396-2009     |                  |                  |                 |                  |
|                   | EN10216-5,EN10217-7,DIN 17456,DIN 17458                                                       |                  |                  |                 |                  |
|                   | JIS G3463,JIS G3119,JIS G3446,JIS G3218,JIS G3258,JIS G3448,JIS H4631                         |                  |                  |                 |                  |
|                   | DEP 31,DEP 40,DEP 20,DEP 32,DNV-OS-F101                                                       |                  |                  |                 |                  |
| Grade             | Q195 = S195 / A53 Grade A                                                                     |                  |                  |                 |                  |
|                   | Q235 = S235 / A53 Grade B / A500 Grade A / STK400 / SS400 / ST42.2                            |                  |                  |                 |                  |
|                   | Q345 = S355JR / A500 Grade B Grade C                                                          |                  |                  |                 |                  |
| Outer Diameter    | ERW / HFW                                                                                     | LSAW / DSAW      | SSAW / HSAW      | RHS             | SHS              |
|                   | 1/8 - 20 inch                                                                                 | 12 - 56 inch     | 8 - 126 inch     | 40 x 20 mm      | 15 x 15 mm       |
|                   | (10.3-508 mm)                                                                                 | (323.8-1,420 mm) | (219.1-3,200 mm) | -1,000 x 800 mm | -1,000× 1,000 mm |
| Wall Thickness    | 0.4 - 16 mm                                                                                   | 6.0 - 40 mm      | 6.0 - 26 mm      | 1.0 - 30 mm     | 0.6 - 30 mm      |
| Length            | 5.8~12.0 m or as customized                                                                   |                  |                  |                 |                  |
| Surface Treatment | Prime quality (bared, oiled, color paint, 3LPE, or other anti-corrosive treatment)            |                  |                  |                 |                  |





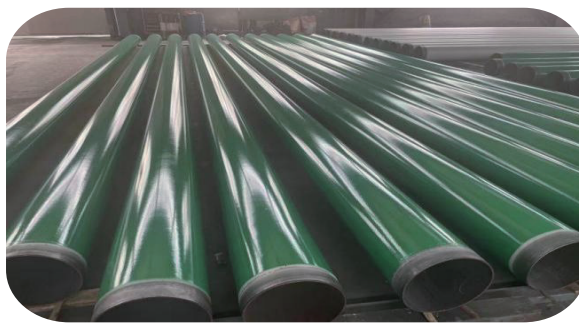
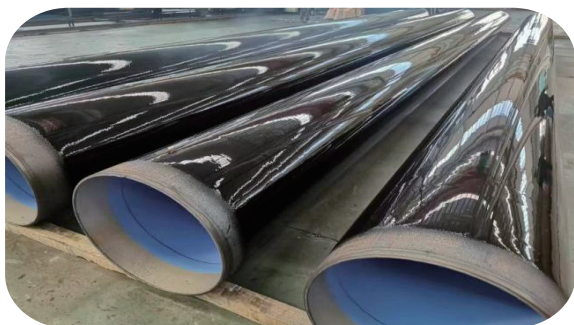
## SIZE OF SPIRAL STEEL PIPE

Double-sided spiral SAW pipe nominal diameter and wall thickness theoretical weight per meter

| theoretical weight of per meter(Kg/m) |           |                    |        |        |        |        |        |        |        |        |        |        |        |
|---------------------------------------|-----------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| INCH                                  | O.D<br>mm | Wall thickness(mm) |        |        |        |        |        |        |        |        |        |        |        |
|                                       |           | 5                  | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
| 8                                     | 219       | 26.88              | 32.02  | 37.10  | 42.13  |        |        |        |        |        |        |        |        |
| 9                                     | 245       | 30.09              | 35.86  | 41.59  | 47.26  |        |        |        |        |        |        |        |        |
| 10                                    | 273       | 33.55              | 40.01  | 46.42  | 52.78  | 59.10  | 65.36  |        |        |        |        |        |        |
| 12.5                                  | 300       | 39.96              | 47.70  | 55.40  | 63.04  | 70.64  | 78.18  |        |        |        |        |        |        |
| 14                                    | 350       | 46.37              | 55.40  | 64.37  | 73.30  | 82.18  | 91.09  |        |        |        |        |        |        |
| 16                                    | 400       | 52.41              | 62.65  | 72.83  | 82.97  | 93.05  | 103.09 |        |        |        |        |        |        |
| 18                                    | 450       | 58.82              | 70.34  | 81.81  | 93.23  | 104.60 | 115.92 |        |        |        |        |        |        |
| 20                                    | 529       | 65.11              | 77.89  | 90.61  | 103.29 | 115.92 | 128.49 | 141.02 | 153.50 | 165.93 |        |        |        |
| 24                                    | 600       |                    | 92.83  | 108.05 | 123.22 | 138.33 | 153.40 | 168.42 | 183.39 | 198.31 |        |        |        |
| 28                                    | 700       |                    | 106.12 | 123.59 | 140.97 | 158.31 | 175.60 | 192.84 | 210.02 | 227.16 |        |        |        |
| 32                                    | 820       |                    | 120.95 | 140.85 | 160.70 | 180.50 | 200.26 | 219.96 | 239.62 | 259.22 |        |        |        |
| 36                                    | 920       |                    | 135.74 | 158.10 | 180.43 | 202.70 | 224.92 | 247.09 | 269.21 | 291.28 |        |        |        |
| 40                                    | 1020      |                    | 150.54 | 175.36 | 200.16 | 224.89 | 249.58 | 274.22 | 298.81 | 323.34 | 347.82 | 396.66 | 445.29 |
| 44                                    | 1120      |                    |        |        | 219.89 | 247.09 | 274.24 | 301.35 | 328.40 | 335.40 | 382.36 | 436.12 | 489.69 |
| 48                                    | 1220      |                    |        |        | 239.62 | 269.29 | 297.90 | 328.47 | 357.99 | 387.46 | 416.88 | 475.58 | 534.08 |
| 52                                    | 1320      |                    |        |        | 259.35 | 291.48 | 323.57 | 355.60 | 387.59 | 419.52 | 451.41 | 515.04 | 578.47 |
| 56                                    | 1420      |                    |        |        | 279.08 | 313.68 | 348.23 | 382.73 | 417.18 | 451.58 | 485.94 | 485.94 | 622.86 |
| 60                                    | 1520      |                    |        |        | 298.81 | 335.87 | 372.89 | 409.86 | 446.77 | 483.64 | 520.46 | 593.95 | 667.25 |
| 64                                    | 1620      |                    |        |        | 318.53 | 358.08 | 397.55 | 436.98 | 476.37 | 515.70 | 554.99 | 633.41 | 711.64 |
| 68                                    | 1720      |                    |        |        | 338.26 | 380.26 | 422.21 | 464.11 | 505.96 | 547.76 | 589.52 | 672.87 | 756.03 |
| 72                                    | 1820      |                    |        |        |        | 402.46 | 446.87 | 491.24 | 535.56 | 579.82 | 624.04 | 715.33 | 800.42 |
| 76                                    | 1920      |                    |        |        |        | 424.65 | 471.53 | 518.37 | 565.15 | 611.88 | 658.57 | 751.79 | 844.81 |
| 80                                    | 2020      |                    |        |        |        | 446.85 | 496.20 | 545.49 | 594.74 | 643.94 | 693.09 | 791.25 | 889.20 |
|                                       | 2030      |                    |        |        |        | 449.07 | 499.16 | 584.21 | 598.29 | 647.15 | 697.24 | 795.98 | 894.53 |

### Surface Treatment

*Prime quality (PU Epoxy, bared, oiled, color paint, 3LPE, or other anti-corrosive treatment).  
Colors can be customized*

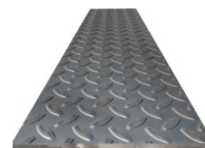


# Steel Wire Rod

| Grade                                                                                | Diameter                              | Application                                                                     |
|--------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------|
| Q195 Q235<br>SAE1006/SAE1008/SAE1018                                                 | 5.5mm 6.5mm<br>8.0mm 10.0mm<br>12.0mm | Making nail,wire-drawing,<br>weaving of wire mesh, soft pipe,<br>steel wire,etc |
|    |                                       |                                                                                 |
| Grade                                                                                | Diameter                              | Application                                                                     |
| 10B18/10B21/10B28/10B30/10B33/<br>10B38/SAE10B18/SAE10B21                            | 5.5mm~42mm                            | Making class 8.8-12.9 fasteners                                                 |
|  |                                       |                                                                                 |
| Grade                                                                                | Diameter                              | Application                                                                     |
| SWRCH20K/SWRCH25K/SWRCH35K<br>SWRH40K/SWRCH45K/SWRCH50K                              | 5.5mm~42m                             | Making 8.8-10.9 class bolts,<br>nuts, flange bolts, hexagon bolts.              |
|  |                                       |                                                                                 |



## Steel Checker Plate



|                  |                                                                                                                                                                      |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>  | <b>Q235, Q345, SS400, ASTM A36, ASTM A500 (Gr. A, B, C, D), ASTM A252 (Gr.2, 3), ASTM A572 Gr.50, ASTM A283, S235JR, S275JR, S355JR, S355J2H, S355JOH and so on.</b> |
| <b>Thickness</b> | <b>1.5-20mm</b>                                                                                                                                                      |
| <b>Width</b>     | <b>1000-3000mm</b>                                                                                                                                                   |
| <b>Length</b>    | <b>6000mm, 12000mm or as per your request</b>                                                                                                                        |
| <b>Surface</b>   | <b>Black, Oiled, Painted, Galvanized</b>                                                                                                                             |

## Carbon Steel Plate



|                  |                                                                                                                    |
|------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>  | <b>ASTM A36, ASTM A572, ASTM A283, ASTM A500, ASTM A588, SS400, Q195, Q235, Q235NH, S355, S275, Q345 and so on</b> |
| <b>Thickness</b> | <b>1.4-50mm</b>                                                                                                    |
| <b>Width</b>     | <b>1000/1200/1219/1250/1500/1800/2000/2200mm</b>                                                                   |
| <b>Length</b>    | <b>6000mm, 12000mm or as per your request</b>                                                                      |
| <b>Surface</b>   | <b>Black, Oiled, Painted, Galvanized</b>                                                                           |

# Our Clients



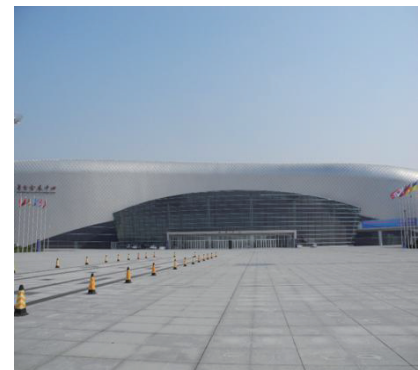
# Project Cases



Haimen bridge



Tianjin aquarium



Wuqing gymnasium



Beijing's Bird's Nest



Convention and exhibition center



University gymnasium



# 天津市明洋金属制品有限公司

## Tianjin Baolf Steel Co., Limited

地址: 天津市静海区蔡公庄工业区官坑村东

ADD:EAST GUANKENG ,CAIGONGZHUANG INDUSTRIAL ZONE,JINGHAI  
TIANJIN,CHINA

电话/Tel: +86 22-29353313

网址/Website: <http://www.tbfsteel.com>