

# INDUSTRIAL CHAIN SPROCKETS

A sprocket is a simple mechanical wheel with teeth. They are designed to rotate and engage with the links of a chain or belt. To be able to operate properly both the chain and the sprocket need to have the same thickness and pitch.

We deliver sprockets with all its chains and offer our sprockets with teeth in accordance with DIN / ISO / ANSI and also sprockets with optimized teeth shapes. We serve our sprockets that are produced from high quality materials and can be supplied without heat treatment, heat treated or with induction hardened teeth upon request.

Different types of sprockets have different hubs. A hub is the added thickness around the central plate of a sprocket that doesn't include the teeth. There are four main types of chain sprockets as established by the ANSI:

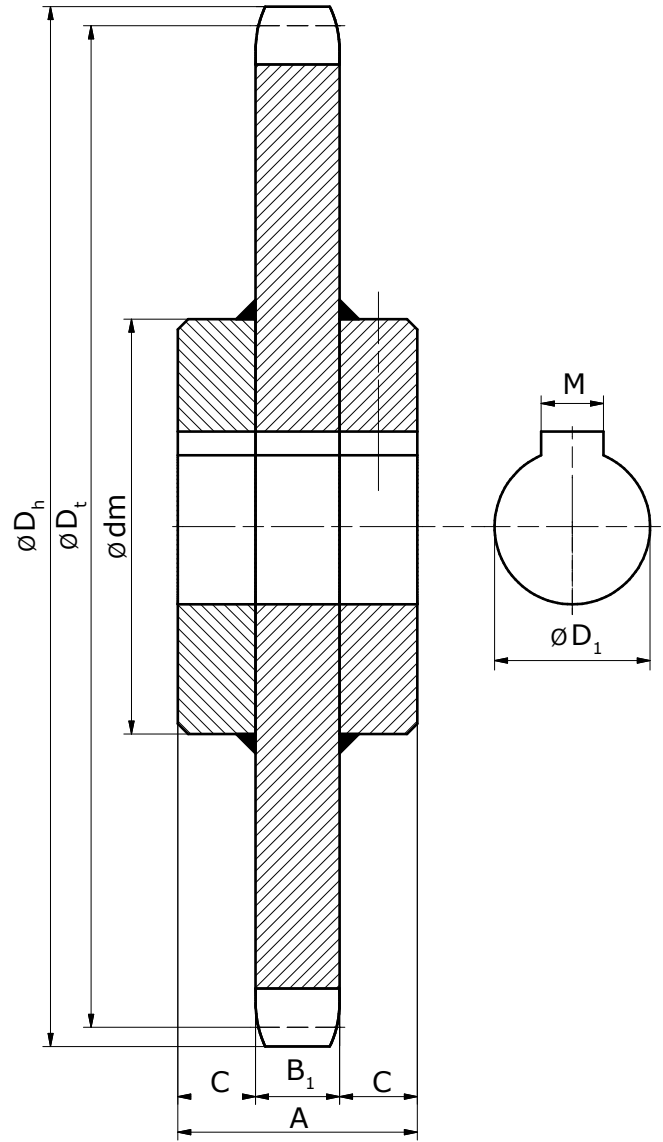
1. **Type A sprockets**, which are only the plate with no added thickness or hubs.
2. **Type B sprockets**, which have a hub on one side.
3. **Type C sprockets**, which have hubs of equal thickness on both sides of the plate.
4. **Type C offset or Type D sprockets**, which also have two hubs. However, each hub has a different thickness, making the sprocket asymmetrical.

The different types allow for different applications. Type A and B sprockets fit easily against equipment with tolerance, while Type C sprockets are generally larger and need more thickness to support weight.

## CUSTOM MADE SPROCKETS

System performance highly depends on chain-sprocket interaction, which means your choice of sprockets can elevate your operation's success. As Makelsan Chain we provide the right type of sprocket that corresponds with the matching chain.





# SPROCKET SIZE CHART

| No of teeth<br>[Z] | 8.00  | 3/8<br>9.53 | 1/2<br>12.70 | 5/8<br>15.88 | 3/4<br>19.05 | 1<br>25.40 | 1 1/4<br>31.75 | 1 1/2<br>38.10 | 13/4<br>44.45 | 2<br>50.80 | 2 1/2<br>63.50 | 3<br>76.20 | 3 1/2<br>88.90 | 4<br>101.60 |
|--------------------|-------|-------------|--------------|--------------|--------------|------------|----------------|----------------|---------------|------------|----------------|------------|----------------|-------------|
| 9                  | 28.7  | 33.5        | 44.5         | 56.4         | 68.1         | 90.9       | 114.8          | 133.9          | 158.8         | 186.0      | 227.9          | 271.8      | 320.8          | 363.7       |
| 10                 | 30.7  | 35.8        | 47.8         | 60.5         | 72.9         | 97.6       | 123.2          | 143.8          | 170.5         | 199.2      | 244.4          | 291.6      | 343.9          | 389.9       |
| 11                 | 32.8  | 38.6        | 51.3         | 64.8         | 78.0         | 104.4      | 131.9          | 154.0          | 182.4         | 212.9      | 261.4          | 312.2      | 367.8          | 417.3       |
| 12                 | 35.1  | 41.2        | 54.9         | 69.4         | 83.3         | 111.5      | 140.5          | 164.6          | 194.8         | 226.8      | 279.2          | 333.3      | 392.4          | 445.8       |
| 13                 | 38.4  | 45.0        | 60.0         | 75.5         | 91.0         | 124.4      | 152.9          | 180.1          | 212.4         | 246.2      | 304.1          | 363.5      | 427.2          | 485.7       |
| 14                 | 40.7  | 47.8        | 63.8         | 80.3         | 96.5         | 129.1      | 162.3          | 191.3          | 225.3         | 261.1      | 322.6          | 385.8      | 453.4          | 515.6       |
| 15                 | 43.0  | 50.6        | 67.6         | 84.9         | 102.1        | 136.4      | 171.7          | 202.7          | 238.8         | 276.4      | 341.6          | 408.7      | 479.8          | 545.9       |
| 16                 | 45.5  | 53.6        | 71.4         | 89.7         | 108.0        | 144.0      | 181.1          | 214.2          | 252.0         | 291.6      | 360.7          | 431.6      | 506.5          | 576.3       |
| 17                 | 47.8  | 56.4        | 75.2         | 94.5         | 113.6        | 151.9      | 190.8          | 225.6          | 265.5         | 306.9      | 379.7          | 454.4      | 533.4          | 607.1       |
| 18                 | 50.3  | 59.2        | 79.0         | 99.3         | 119.4        | 159.5      | 200.4          | 237.3          | 278.9         | 322.4      | 399.3          | 477.8      | 560.3          | 638.1       |
| 19                 | 52.6  | 62.2        | 82.8         | 104.2        | 125.2        | 167.4      | 210.1          | 248.7          | 292.6         | 337.9      | 418.6          | 500.9      | 587.5          | 669.1       |
| 20                 | 55.9  | 66.3        | 88.4         | 110.8        | 133.1        | 177.8      | 222.8          | 265.0          | 310.7         | 356.9      | 444.3          | 532.4      | 622.8          | 710.5       |
| 21                 | 58.4  | 69.1        | 92.2         | 115.8        | 139.2        | 185.7      | 232.4          | 276.6          | 324.4         | 372.6      | 464.1          | 556.0      | 650.5          | 742.0       |
| 22                 | 61.0  | 72.2        | 96.3         | 120.7        | 145.1        | 193.6      | 242.3          | 288.6          | 338.4         | 388.6      | 483.8          | 579.7      | 678.2          | 773.5       |
| 23                 | 63.5  | 75.2        | 100.1        | 125.8        | 150.9        | 201.4      | 252.2          | 300.3          | 352.1         | 404.4      | 503.7          | 603.3      | 705.9          | 805.2       |
| 24                 | 65.8  | 78.3        | 104.2        | 130.6        | 157.0        | 209.3      | 262.2          | 312.2          | 366.0         | 420.2      | 523.5          | 627.1      | 733.6          | 837.0       |
| 25                 | 68.4  | 81.0        | 108.2        | 135.7        | 162.8        | 217.4      | 272.1          | 324.1          | 380.0         | 436.2      | 543.3          | 651.0      | 761.5          | 868.7       |
| 26                 | 70.9  | 84.1        | 112.0        | 140.5        | 168.9        | 225.3      | 282.0          | 336.1          | 393.7         | 451.9      | 563.1          | 674.9      | 789.2          | 900.5       |
| 27                 | 73.4  | 86.9        | 115.8        | 145.6        | 174.8        | 233.2      | 292.1          | 347.8          | 407.7         | 468.4      | 583.2          | 698.8      | 817.4          | 932.5       |
| 28                 | 76.0  | 89.9        | 119.9        | 150.4        | 180.9        | 241.3      | 302.0          | 359.7          | 421.7         | 484.1      | 603.3          | 722.7      | 845.3          | 964.2       |
| 29                 | 78.5  | 93.0        | 124.0        | 155.5        | 186.7        | 249.2      | 312.2          | 371.6          | 435.6         | 500.1      | 623.1          | 746.5      | 873.3          | 996.2       |
| 30                 | 81.0  | 96.0        | 127.8        | 160.6        | 192.8        | 257.3      | 322.1          | 383.8          | 449.6         | 516.1      | 643.2          | 770.4      | 901.2          | 1028.2      |
| 31                 | 83.6  | 99.1        | 131.9        | 165.4        | 198.6        | 265.2      | 332.0          | 395.8          | 463.6         | 532.1      | 663.0          | 794.5      | 929.1          | 1060.2      |
| 32                 | 86.1  | 101.9       | 135.9        | 170.5        | 204.7        | 273.3      | 342.2          | 407.7          | 477.6         | 548.1      | 683.0          | 818.4      | 957.1          | 1092.2      |
| 33                 | 88.4  | 104.9       | 140.0        | 175.5        | 210.8        | 281.2      | 352.1          | 419.6          | 491.8         | 564.1      | 703.1          | 842.5      | 985.3          | 1124.2      |
| 34                 | 91.0  | 108.0       | 143.8        | 180.4        | 216.7        | 289.3      | 362.0          | 431.8          | 505.7         | 580.2      | 723.2          | 866.4      | 1013.2         | 1156.2      |
| 35                 | 93.5  | 111.0       | 147.9        | 185.4        | 222.8        | 297.2      | 372.1          | 443.8          | 519.7         | 596.2      | 743.2          | 890.5      | 1041.2         | 1188.2      |
| 36                 | 96.0  | 114.1       | 151.9        | 190.5        | 228.9        | 305.3      | 382.0          | 455.8          | 533.7         | 612.2      | 763.0          | 914.7      | 1069.4         | 1220.2      |
| 37                 | 98.6  | 116.9       | 156.0        | 195.6        | 234.7        | 313.2      | 392.2          | 467.9          | 547.7         | 628.4      | 783.1          | 938.8      | 1097.3         | 1252.5      |
| 38                 | 101.1 | 119.9       | 160.0        | 200.4        | 240.8        | 321.3      | 402.1          | 479.8          | 561.9         | 644.4      | 803.2          | 962.7      | 1125.5         | 1284.5      |
| 39                 | 103.7 | 123.0       | 163.8        | 205.5        | 246.9        | 329.2      | 412.3          | 491.8          | 575.9         | 660.4      | 823.2          | 986.8      | 1153.7         | 1316.5      |
| 40                 | 106.2 | 126.0       | 167.9        | 210.6        | 252.8        | 337.3      | 422.4          | 503.7          | 589.8         | 676.9      | 843.5          | 1010.9     | 1181.9         | 1348.8      |
| 41                 | 108.7 | 129.0       | 172.0        | 215.4        | 258.9        | 345.5      | 432.3          | 515.6          | 604.0         | 692.9      | 863.6          | 1035.1     | 1210.1         | 1381.0      |
| 42                 | 111.3 | 132.1       | 175.8        | 220.5        | 264.9        | 353.3      | 442.5          | 527.8          | 618.0         | 708.9      | 883.7          | 1059.2     | 1238.3         | 1413.0      |
| 43                 | 113.8 | 134.9       | 179.8        | 225.6        | 270.8        | 361.5      | 452.4          | 539.8          | 632.2         | 725.2      | 903.8          | 1083.3     | 1266.5         | 1445.3      |
| 44                 | 116.4 | 138.0       | 183.9        | 230.7        | 276.9        | 369.6      | 462.6          | 552.0          | 646.2         | 741.2      | 923.8          | 1107.5     | 1294.4         | 1447.3      |
| 45                 | 118.9 | 141.0       | 188.0        | 235.7        | 283.0        | 377.5      | 472.7          | 563.9          | 660.2         | 757.2      | 943.8          | 1131.6     | 1322.6         | 1509.5      |
| 46                 | 121.4 | 144.0       | 192.0        | 240.6        | 289.1        | 385.6      | 486.6          | 576.1          | 674.4         | 773.5      | 964.2          | 1155.7     | 1350.8         | 1540.5      |
| 47                 | 124.0 | 147.1       | 196.1        | 245.6        | 294.9        | 393.7      | 492.8          | 588.0          | 688.4         | 789.5      | 984.3          | 1179.9     | 1379.0         | 1572.8      |
| 48                 | 126.5 | 150.1       | 199.9        | 250.7        | 301.0        | 401.6      | 502.7          | 600.2          | 702.6         | 805.5      | 1004.3         | 1204.0     | 1407.2         | 1605.3      |
| 49                 | 129.1 | 153.2       | 204.0        | 255.8        | 307.1        | 409.7      | 512.8          | 612.2          | 716.6         | 821.7      | 1024.4         | 1228.1     | 1435.4         | 1637.6      |
| 50                 | 131.6 | 156.2       | 208.0        | 260.9        | 313.2        | 417.9      | 532.0          | 624.3          | 730.8         | 837.7      | 1044.5         | 1252.2     | 1463.6         | 1669.8      |
| 51                 | 134.1 | 159.0       | 212.1        | 265.7        | 319.0        | 425.7      | 532.9          | 636.3          | 744.8         | 853.7      | 1064.8         | 1276.4     | 1491.5         | 1702.1      |
| 52                 | 136.7 | 162.1       | 216.2        | 270.8        | 325.1        | 433.9      | 543.1          | 648.5          | 758.7         | 870.0      | 1084.8         | 1300.5     | 1519.7         | 1734.6      |
| 53                 | 139.2 | 165.1       | 220.2        | 275.9        | 331.2        | 442.0      | 553.2          | 660.4          | 773.0         | 886.0      | 1104.9         | 1324.6     | 1547.9         | 1766.8      |
| 54                 | 141.8 | 168.2       | 224.3        | 280.9        | 337.3        | 450.1      | 563.2          | 672.6          | 786.9         | 902.2      | 1125.2         | 1348.8     | 1576.1         | 1799.1      |
| 55                 | 144.3 | 171.2       | 228.1        | 286.0        | 343.4        | 458.0      | 573.3          | 684.6          | 801.2         | 918.2      | 1145.3         | 1372.9     | 1604.3         | 1831.4      |
| 56                 | 146.8 | 174.3       | 232.2        | 290.9        | 349.3        | 466.1      | 583.2          | 696.7          | 815.1         | 934.5      | 1165.4         | 1397.3     | 1632.5         | 1863.9      |
| 57                 | 149.4 | 177.3       | 236.2        | 295.9        | 355.4        | 474.2      | 593.4          | 708.9          | 829.3         | 950.5      | 1185.4         | 1412.4     | 1660.9         | 1896.1      |
| 58                 | 152.0 | 180.4       | 240.3        | 301.0        | 361.5        | 482.1      | 603.5          | 720.9          | 843.6         | 966.5      | 1205.8         | 1445.5     | 1689.1         | 1928.3      |
| 59                 | 154.5 | 183.4       | 244.4        | 306.1        | 367.6        | 490.2      | 613.4          | 733.1          | 857.6         | 982.7      | 1225.8         | 1469.7     | 1717.3         | 1960.6      |
| 60                 | 157.0 | 186.2       | 248.4        | 311.2        | 373.7        | 498.4      | 623.6          | 745.0          | 871.7         | 998.7      | 1245.9         | 1493.8     | 1745.5         | 1993.2      |
| 61                 | 159.5 | 189.3       | 252.5        | 316.3        | 379.5        | 506.5      | 633.8          | 757.2          | 885.7         | 1015.0     | 1266.2         | 1518.2     | 1773.7         | 2025.4      |
| 62                 | 162.1 | 192.3       | 256.3        | 321.1        | 385.6        | 514.4      | 643.7          | 769.4          | 899.9         | 1031.0     | 1286.3         | 1542.3     | 1801.9         | 2057.7      |
| 63                 | 164.6 | 195.4       | 260.4        | 326.2        | 391.7        | 522.5      | 653.8          | 781.3          | 913.9         | 1047.3     | 1306.3         | 1566.4     | 1830.1         | 2089.4      |
| 64                 | 167.2 | 198.4       | 264.4        | 331.2        | 397.8        | 530.6      | 664.0          | 793.5          | 928.2         | 1063.3     | 1326.7         | 1590.6     | 1858.3         | 2121.7      |
| 65                 | 169.7 | 201.4       | 268.5        | 336.3        | 403.9        | 538.7      | 674.1          | 805.7          | 942.1         | 1079.5     | 1346.7         | 1615.0     | 1886.5         | 2153.9      |
| 66                 | 172.2 | 204.5       | 272.6        | 341.4        | 409.7        | 546.6      | 684.0          | 817.6          | 956.3         | 1095.5     | 1367.1         | 1639.1     | 1914.7         | 2186.2      |
| 67                 | 174.8 | 207.5       | 276.6        | 346.5        | 415.8        | 554.8      | 694.2          | 829.8          | 970.6         | 1111.8     | 1387.1         | 1663.2     | 1943.1         | 2218.4      |
| 68                 | 177.3 | 210.6       | 280.7        | 351.6        | 421.9        | 562.9      | 704.4          | 841.8          | 984.5         | 1127.8     | 1407.2         | 1687.3     | 1971.3         | 2050.7      |
| 69                 | 179.9 | 213.6       | 284.8        | 356.5        | 428.0        | 571.0      | 714.3          | 854.0          | 998.8         | 1144.0     | 1427.5         | 1711.7     | 1999.5         | 2283.0      |
| 70                 | 182.4 | 216.7       | 288.6        | 361.4        | 434.1        | 578.9      | 724.4          | 866.2          | 1012.7        | 1160.0     | 1447.6         | 1735.9     | 2027.7         | 2315.2      |
| 71                 | 184.9 | 219.5       | 292.6        | 366.5        | 440.2        | 587.0      | 734.6          | 878.1          | 1026.9        | 1176.3     | 1467.9         | 1760.0     | 2055.9         | 2347.5      |
| 72                 | 187.5 | 222.5       | 296.7        | 371.6        | 446.0        | 595.1      | 744.5          | 890.3          | 1040.9        | 1192.3     | 1487.9         | 1784.1     | 2084.1         | 2380.0      |
| 73                 | 190.0 | 225.6       | 300.8        | 376.7        | 452.1        | 603.3      | 754.7          | 902.5          | 1055.2        | 1208.5     | 1508.0         | 1808.5     | 2112.5         | 2412.3      |
| 74                 | 192.5 | 228.6       | 304.8        | 381.8        | 458.2        | 611.1      | 764.8          | 914.4          | 1069.4        | 1224.8     | 1528.3         | 1832.6     | 2140.7         | 2444.5      |
| 75                 | 195.1 | 231.7       | 308.9        | 386.9        | 464.3        | 619.3      | 775.0          | 926.6          | 1083.3        | 1240.8     | 1548.4         | 1856.8     | 2168.9         | 2476.8      |
| 76                 | 197.6 | 234.7       | 313.0        | 391.7        | 470.4        | 627.4      | 784.9          | 938.8          | 1097.5        | 1257.1     | 1568.7         | 1881.1     | 2197.1         | 2509.0      |
| 77                 | 200.2 | 237.8       | 317.0        | 396.8        | 476.5        | 635.5      | 795.0          | 950.7          | 1111.5        | 1273.1     | 1588.8         | 1905.3     | 2225.3         | 2541.3      |
| 78                 | 202.7 | 240.8       | 321.1        | 401.9        | 482.4        | 643.7      | 805.2          | 962.9          | 1125.8        | 1289.3     | 1609.1         | 1929.4     | 2253.8         | 2573.5      |
| 79                 | 205.2 | 243.9       | 324.9        | 406.9        | 488.5        | 651.5      | 815.1          | 975.1          | 1140.0        | 1305.3     | 1629.2         | 1953.8     | 2282.0         | 2605.8      |
| 80                 | 207.8 | 246.9       | 329.0        | 412.0        | 494.6        | 659.7      | 825.5          | 986.8          | 1154.0        | 1321.8     | 1649.5         | 1977.9     | 2310.4         | 2638.3      |