

**COULISSE** Product Reference


# Spur Gears

2015

Technical Engineering Department

Research & Development Department

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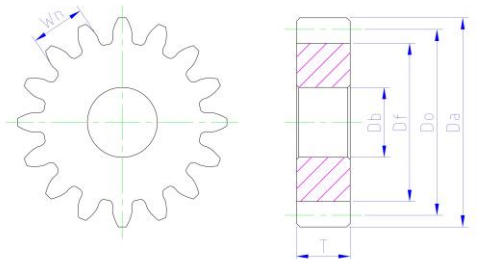
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## Introduction;

This catalogue has been prepared generally for customers, designers, and students. Users should note that the productions of **COULISSE** Company are not limited to those mentioned in this catalogue. **COULISSE** Company is ready to manufacture any kind of gear and sprocket based on your needs and inquiries. **COULISSE** is looking forward to having any kind of technical and commercial cooperation with you. Please keep in touch with us.

Behrouz Mohammadpour  
Technical Engineering Manager

### Table of Spur Gear Mn 2.0

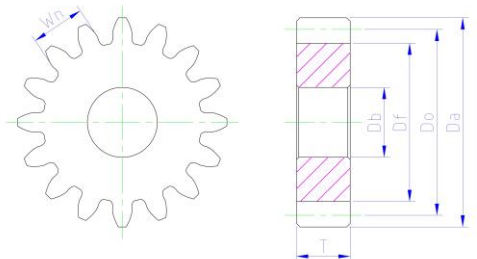
|   |                       |           |                     |           |           |           |
|---|-----------------------|-----------|---------------------|-----------|-----------|-----------|
|  | Item                  | Symbol    |                     |           |           |           |
|   | Material              |           | DIN 1.0037          |           |           |           |
|   | normal pressure angle | $\psi_n$  | 20                  |           |           |           |
|   | Out Side Diameter     | Da        | $=mn \times (z+2)$  |           |           |           |
|   | Pitch Diameter        | Do        | $=mn \times z$      |           |           |           |
|   | Root Diameter         | Df        | $=Do - 2(mn+0.167)$ |           |           |           |
|   | Bore Diameter         | Db        | -                   |           |           |           |
| Thickness   | T                     | 19        |                     |           |           |           |
| Dk  | 0~50                  | 50~150    | 150~250             | 250~350   | 350~450   | 450~      |
| Tolerance   | +0.1/-0.1             | +0.2/-0.2 | +0.2/-0.3           | +0.3/-0.4 | +0.3/-0.4 | +0.3/-0.6 |
| Other tolerances according to ISO 2768-1 m  |                       |           |                     |           |           |           |

| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |      |      |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|------|------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do   | Df   | Db |       |             |
| GS m2-010    | 2.0 | 10 | 2  | 9.06           | 9.02  | 24.0          | 20.0 | 15.7 | 15 | 19    | 0.02        |
| GS m2-011    | 2.0 | 11 | 2  | 9.08           | 9.04  | 26.0          | 22.0 | 17.7 | 15 | 19    | 0.03        |
| GS m2-012    | 2.0 | 12 | 2  | 9.11           | 9.07  | 28.0          | 24.0 | 19.7 | 15 | 19    | 0.04        |
| GS m2-013    | 2.0 | 13 | 2  | 9.14           | 9.10  | 30.0          | 26.0 | 21.7 | 15 | 19    | 0.05        |
| GS m2-014    | 2.0 | 14 | 2  | 9.17           | 9.13  | 32.0          | 28.0 | 23.7 | 15 | 19    | 0.07        |
| GS m2-015    | 2.0 | 15 | 2  | 9.20           | 9.16  | 34.0          | 30.0 | 25.7 | 15 | 19    | 0.08        |
| GS m2-016    | 2.0 | 16 | 3  | 15.13          | 15.09 | 36.0          | 32.0 | 27.7 | 15 | 19    | 0.09        |
| GS m2-017    | 2.0 | 17 | 3  | 15.16          | 15.12 | 38.0          | 34.0 | 29.7 | 15 | 19    | 0.11        |
| GS m2-018    | 2.0 | 18 | 3  | 15.18          | 15.14 | 40.0          | 36.0 | 31.7 | 15 | 19    | 0.13        |
| GS m2-019    | 2.0 | 19 | 3  | 15.21          | 15.17 | 42.0          | 38.0 | 33.7 | 15 | 19    | 0.14        |
| GS m2-020    | 2.0 | 20 | 3  | 15.24          | 15.20 | 44.0          | 40.0 | 35.7 | 15 | 19    | 0.16        |
| GS m2-021    | 2.0 | 21 | 3  | 15.27          | 15.23 | 46.0          | 42.0 | 37.7 | 15 | 19    | 0.18        |
| GS m2-022    | 2.0 | 22 | 3  | 15.30          | 15.26 | 48.0          | 44.0 | 39.7 | 15 | 19    | 0.20        |
| GS m2-023    | 2.0 | 23 | 3  | 15.33          | 15.29 | 50.0          | 46.0 | 41.7 | 20 | 19    | 0.20        |
| GS m2-024    | 2.0 | 24 | 4  | 21.26          | 21.22 | 52.0          | 48.0 | 43.7 | 20 | 19    | 0.22        |
| GS m2-025    | 2.0 | 25 | 4  | 21.29          | 21.25 | 54.0          | 50.0 | 45.7 | 20 | 19    | 0.25        |
| GS m2-026    | 2.0 | 26 | 4  | 21.31          | 21.27 | 56.0          | 52.0 | 47.7 | 20 | 19    | 0.27        |
| GS m2-027    | 2.0 | 27 | 4  | 21.34          | 21.30 | 58.0          | 54.0 | 49.7 | 20 | 19    | 0.30        |
| GS m2-028    | 2.0 | 28 | 4  | 21.37          | 21.33 | 60.0          | 56.0 | 51.7 | 20 | 19    | 0.32        |
| GS m2-029    | 2.0 | 29 | 4  | 21.40          | 21.36 | 62.0          | 58.0 | 53.7 | 20 | 19    | 0.35        |
| GS m2-030    | 2.0 | 30 | 4  | 21.43          | 21.39 | 64.0          | 60.0 | 55.7 | 20 | 19    | 0.38        |
| GS m2-031    | 2.0 | 31 | 4  | 21.45          | 21.41 | 66.0          | 62.0 | 57.7 | 20 | 19    | 0.41        |
| GS m2-032    | 2.0 | 32 | 4  | 21.48          | 21.44 | 68.0          | 64.0 | 59.7 | 20 | 19    | 0.44        |
| GS m2-033    | 2.0 | 33 | 5  | 27.41          | 27.37 | 70.0          | 66.0 | 61.7 | 20 | 19    | 0.47        |
| GS m2-034    | 2.0 | 34 | 5  | 27.44          | 27.40 | 72.0          | 68.0 | 63.7 | 20 | 19    | 0.50        |
| GS m2-035    | 2.0 | 35 | 5  | 27.47          | 27.43 | 74.0          | 70.0 | 65.7 | 20 | 19    | 0.53        |
| GS m2-036    | 2.0 | 36 | 5  | 27.50          | 27.46 | 76.0          | 72.0 | 67.7 | 20 | 19    | 0.56        |
| GS m2-037    | 2.0 | 37 | 5  | 27.53          | 27.49 | 78.0          | 74.0 | 69.7 | 20 | 19    | 0.60        |
| GS m2-038    | 2.0 | 38 | 5  | 27.56          | 27.52 | 80.0          | 76.0 | 71.7 | 20 | 19    | 0.63        |
| GS m2-039    | 2.0 | 39 | 5  | 27.58          | 27.54 | 82.0          | 78.0 | 73.7 | 20 | 19    | 0.67        |

| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do    | Df    | Db |       |             |
| GS m2-040    | 2.0 | 40 | 5  | 27.61          | 27.57 | 84.0          | 80.0  | 75.7  | 20 | 19    | 0.71        |
| GS m2-041    | 2.0 | 41 | 6  | 33.54          | 33.50 | 86.0          | 82.0  | 77.7  | 20 | 19    | 0.74        |
| GS m2-042    | 2.0 | 42 | 6  | 33.57          | 33.53 | 88.0          | 84.0  | 79.7  | 20 | 19    | 0.78        |
| GS m2-043    | 2.0 | 43 | 6  | 33.60          | 33.56 | 90.0          | 86.0  | 81.7  | 20 | 19    | 0.82        |
| GS m2-044    | 2.0 | 44 | 6  | 33.63          | 33.59 | 92.0          | 88.0  | 83.7  | 20 | 19    | 0.86        |
| GS m2-045    | 2.0 | 45 | 6  | 33.65          | 33.61 | 94.0          | 90.0  | 85.7  | 20 | 19    | 0.91        |
| GS m2-046    | 2.0 | 46 | 6  | 33.68          | 33.64 | 96.0          | 92.0  | 87.7  | 20 | 19    | 0.95        |
| GS m2-047    | 2.0 | 47 | 6  | 33.71          | 33.67 | 98.0          | 94.0  | 89.7  | 20 | 19    | 0.99        |
| GS m2-048    | 2.0 | 48 | 6  | 33.74          | 33.70 | 100.0         | 96.0  | 91.7  | 20 | 19    | 1.04        |
| GS m2-049    | 2.0 | 49 | 6  | 33.77          | 33.73 | 102.0         | 98.0  | 93.7  | 20 | 19    | 1.08        |
| GS m2-050    | 2.0 | 50 | 7  | 39.70          | 39.66 | 104.0         | 100.0 | 95.7  | 20 | 19    | 1.13        |
| GS m2-051    | 2.0 | 51 | 7  | 39.73          | 39.69 | 106.0         | 102.0 | 97.7  | 20 | 19    | 1.18        |
| GS m2-052    | 2.0 | 52 | 7  | 39.75          | 39.71 | 108.0         | 104.0 | 99.7  | 20 | 19    | 1.23        |
| GS m2-053    | 2.0 | 53 | 7  | 39.78          | 39.74 | 110.0         | 106.0 | 101.7 | 20 | 19    | 1.28        |
| GS m2-054    | 2.0 | 54 | 7  | 39.81          | 39.77 | 112.0         | 108.0 | 103.7 | 20 | 19    | 1.33        |
| GS m2-055    | 2.0 | 55 | 7  | 39.84          | 39.80 | 114.0         | 110.0 | 105.7 | 20 | 19    | 1.38        |
| GS m2-056    | 2.0 | 56 | 7  | 39.87          | 39.83 | 116.0         | 112.0 | 107.7 | 20 | 19    | 1.43        |
| GS m2-057    | 2.0 | 57 | 7  | 39.89          | 39.85 | 118.0         | 114.0 | 109.7 | 20 | 19    | 1.48        |
| GS m2-058    | 2.0 | 58 | 7  | 39.92          | 39.88 | 120.0         | 116.0 | 111.7 | 20 | 19    | 1.54        |
| GS m2-059    | 2.0 | 59 | 8  | 45.85          | 45.81 | 122.0         | 118.0 | 113.7 | 20 | 19    | 1.59        |
| GS m2-060    | 2.0 | 60 | 8  | 45.88          | 45.84 | 124.0         | 120.0 | 115.7 | 20 | 19    | 1.65        |
| GS m2-061    | 2.0 | 61 | 8  | 45.91          | 45.87 | 126.0         | 122.0 | 117.7 | 20 | 19    | 1.71        |
| GS m2-062    | 2.0 | 62 | 8  | 45.94          | 45.90 | 128.0         | 124.0 | 119.7 | 20 | 19    | 1.76        |
| GS m2-063    | 2.0 | 63 | 8  | 45.97          | 45.93 | 130.0         | 126.0 | 121.7 | 20 | 19    | 1.82        |
| GS m2-064    | 2.0 | 64 | 8  | 45.99          | 45.95 | 132.0         | 128.0 | 123.7 | 20 | 19    | 1.88        |
| GS m2-065    | 2.0 | 65 | 8  | 46.02          | 45.98 | 134.0         | 130.0 | 125.7 | 20 | 19    | 1.94        |
| GS m2-066    | 2.0 | 66 | 8  | 46.05          | 46.01 | 136.0         | 132.0 | 127.7 | 20 | 19    | 2.00        |
| GS m2-067    | 2.0 | 67 | 8  | 46.08          | 46.04 | 138.0         | 134.0 | 129.7 | 20 | 19    | 2.07        |
| GS m2-068    | 2.0 | 68 | 9  | 52.01          | 51.97 | 140.0         | 136.0 | 131.7 | 20 | 19    | 2.13        |
| GS m2-069    | 2.0 | 69 | 9  | 52.04          | 52.00 | 142.0         | 138.0 | 133.7 | 20 | 19    | 2.20        |
| GS m2-070    | 2.0 | 70 | 9  | 52.07          | 52.03 | 144.0         | 140.0 | 135.7 | 20 | 19    | 2.26        |
| GS m2-071    | 2.0 | 71 | 9  | 52.10          | 52.06 | 146.0         | 142.0 | 137.7 | 20 | 19    | 2.33        |
| GS m2-072    | 2.0 | 72 | 9  | 52.12          | 52.08 | 148.0         | 144.0 | 139.7 | 20 | 19    | 2.39        |
| GS m2-073    | 2.0 | 73 | 9  | 52.15          | 52.11 | 150.0         | 146.0 | 141.7 | 20 | 19    | 2.46        |
| GS m2-074    | 2.0 | 74 | 9  | 52.18          | 52.14 | 152.0         | 148.0 | 143.7 | 20 | 19    | 2.53        |
| GS m2-075    | 2.0 | 75 | 9  | 52.21          | 52.17 | 154.0         | 150.0 | 145.7 | 20 | 19    | 2.60        |
| GS m2-076    | 2.0 | 76 | 9  | 52.24          | 52.20 | 156.0         | 152.0 | 147.7 | 20 | 19    | 2.67        |
| GS m2-077    | 2.0 | 77 | 10 | 58.17          | 58.13 | 158.0         | 154.0 | 149.7 | 20 | 19    | 2.75        |
| GS m2-078    | 2.0 | 78 | 10 | 58.20          | 58.16 | 160.0         | 156.0 | 151.7 | 20 | 19    | 2.82        |
| GS m2-079    | 2.0 | 79 | 10 | 58.22          | 58.18 | 162.0         | 158.0 | 153.7 | 20 | 19    | 2.89        |
| GS m2-080    | 2.0 | 80 | 10 | 58.25          | 58.21 | 164.0         | 160.0 | 155.7 | 20 | 19    | 2.97        |

|           |     |     |    |       |       |       |       |       |    |    |      |
|-----------|-----|-----|----|-------|-------|-------|-------|-------|----|----|------|
| GS m2-081 | 2.0 | 81  | 10 | 58.28 | 58.24 | 166.0 | 162.0 | 157.7 | 20 | 19 | 3.04 |
| GS m2-082 | 2.0 | 82  | 10 | 58.30 | 58.26 | 168.0 | 164.0 | 159.7 | 20 | 19 | 3.12 |
| GS m2-083 | 2.0 | 83  | 10 | 58.32 | 58.28 | 170.0 | 166.0 | 161.7 | 20 | 19 | 3.20 |
| GS m2-084 | 2.0 | 84  | 10 | 58.36 | 58.32 | 172.0 | 168.0 | 163.7 | 20 | 19 | 3.28 |
| GS m2-085 | 2.0 | 85  | 10 | 58.38 | 58.34 | 174.0 | 170.0 | 165.7 | 20 | 19 | 3.36 |
| GS m2-086 | 2.0 | 86  | 11 | 64.32 | 64.28 | 176.0 | 172.0 | 167.7 | 20 | 19 | 3.44 |
| GS m2-087 | 2.0 | 87  | 11 | 64.35 | 64.31 | 178.0 | 174.0 | 169.7 | 20 | 19 | 3.52 |
| GS m2-088 | 2.0 | 88  | 11 | 64.38 | 64.34 | 180.0 | 176.0 | 171.7 | 20 | 19 | 3.60 |
| GS m2-089 | 2.0 | 89  | 11 | 64.41 | 64.37 | 182.0 | 178.0 | 173.7 | 20 | 19 | 3.68 |
| GS m2-090 | 2.0 | 90  | 11 | 64.43 | 64.39 | 184.0 | 180.0 | 175.7 | 20 | 19 | 3.77 |
| GS m2-091 | 2.0 | 91  | 11 | 64.46 | 64.42 | 186.0 | 182.0 | 177.7 | 20 | 19 | 3.85 |
| GS m2-092 | 2.0 | 92  | 11 | 64.49 | 64.45 | 188.0 | 184.0 | 179.7 | 20 | 19 | 3.94 |
| GS m2-093 | 2.0 | 93  | 11 | 64.52 | 64.48 | 190.0 | 186.0 | 181.7 | 20 | 19 | 4.03 |
| GS m2-094 | 2.0 | 94  | 11 | 64.55 | 64.51 | 192.0 | 188.0 | 183.7 | 20 | 19 | 4.11 |
| GS m2-095 | 2.0 | 95  | 12 | 70.48 | 70.44 | 194.0 | 190.0 | 185.7 | 20 | 19 | 4.20 |
| GS m2-096 | 2.0 | 96  | 12 | 70.51 | 70.47 | 196.0 | 192.0 | 187.7 | 20 | 19 | 4.29 |
| GS m2-097 | 2.0 | 97  | 12 | 70.54 | 70.50 | 198.0 | 194.0 | 189.7 | 20 | 19 | 4.38 |
| GS m2-098 | 2.0 | 98  | 12 | 70.56 | 70.52 | 200.0 | 196.0 | 191.7 | 20 | 19 | 4.48 |
| GS m2-099 | 2.0 | 99  | 12 | 70.59 | 70.55 | 202.0 | 198.0 | 193.7 | 20 | 19 | 4.57 |
| GS m2-100 | 2.0 | 100 | 12 | 70.62 | 70.58 | 204.0 | 200.0 | 195.7 | 20 | 19 | 4.66 |
| GS m2-101 | 2.0 | 101 | 12 | 70.65 | 70.61 | 206.0 | 202.0 | 197.7 | 20 | 19 | 4.76 |
| GS m2-102 | 2.0 | 102 | 12 | 70.68 | 70.64 | 208.0 | 204.0 | 199.7 | 20 | 19 | 4.85 |
| GS m2-103 | 2.0 | 103 | 12 | 70.70 | 70.66 | 210.0 | 206.0 | 201.7 | 20 | 19 | 4.95 |
| GS m2-104 | 2.0 | 104 | 13 | 76.64 | 76.60 | 212.0 | 208.0 | 203.7 | 20 | 19 | 5.05 |
| GS m2-105 | 2.0 | 105 | 13 | 76.66 | 76.62 | 214.0 | 210.0 | 205.7 | 20 | 19 | 5.15 |
| GS m2-106 | 2.0 | 106 | 13 | 76.69 | 76.65 | 216.0 | 212.0 | 207.7 | 20 | 19 | 5.24 |
| GS m2-107 | 2.0 | 107 | 13 | 76.72 | 76.68 | 218.0 | 214.0 | 209.7 | 20 | 19 | 5.34 |
| GS m2-108 | 2.0 | 108 | 13 | 76.75 | 76.71 | 220.0 | 216.0 | 211.7 | 20 | 19 | 5.45 |
| GS m2-109 | 2.0 | 109 | 13 | 76.78 | 76.74 | 222.0 | 218.0 | 213.7 | 20 | 19 | 5.55 |
| GS m2-110 | 2.0 | 110 | 13 | 76.80 | 76.76 | 224.0 | 220.0 | 215.7 | 20 | 19 | 5.65 |
| GS m2-111 | 2.0 | 111 | 13 | 76.83 | 76.79 | 226.0 | 222.0 | 217.7 | 20 | 19 | 5.76 |
| GS m2-112 | 2.0 | 112 | 13 | 76.86 | 76.82 | 228.0 | 224.0 | 219.7 | 20 | 19 | 5.86 |
| GS m2-113 | 2.0 | 113 | 14 | 82.79 | 82.75 | 230.0 | 226.0 | 221.7 | 20 | 19 | 5.97 |
| GS m2-114 | 2.0 | 114 | 14 | 82.82 | 82.78 | 232.0 | 228.0 | 223.7 | 20 | 19 | 6.07 |
| GS m2-115 | 2.0 | 115 | 14 | 82.83 | 82.79 | 234.0 | 230.0 | 225.7 | 20 | 19 | 6.18 |
| GS m2-116 | 2.0 | 116 | 14 | 82.88 | 82.84 | 236.0 | 232.0 | 227.7 | 20 | 19 | 6.29 |
| GS m2-117 | 2.0 | 117 | 14 | 82.90 | 82.86 | 238.0 | 234.0 | 229.7 | 20 | 19 | 6.40 |
| GS m2-118 | 2.0 | 118 | 14 | 82.93 | 82.89 | 240.0 | 236.0 | 231.7 | 20 | 19 | 6.51 |
| GS m2-119 | 2.0 | 119 | 14 | 82.96 | 82.92 | 242.0 | 238.0 | 233.7 | 20 | 19 | 6.62 |
| GS m2-120 | 2.0 | 120 | 14 | 82.99 | 82.95 | 244.0 | 240.0 | 235.7 | 20 | 19 | 6.73 |
| GS m2-121 | 2.0 | 121 | 14 | 83.02 | 82.98 | 246.0 | 242.0 | 237.7 | 20 | 19 | 6.85 |
| GS m2-122 | 2.0 | 122 | 14 | 83.05 | 83.01 | 248.0 | 244.0 | 239.7 | 20 | 19 | 6.96 |
| GS m2-123 | 2.0 | 123 | 14 | 83.07 | 83.03 | 250.0 | 246.0 | 241.7 | 20 | 19 | 7.08 |
| GS m2-124 | 2.0 | 124 | 14 | 83.10 | 83.06 | 252.0 | 248.0 | 243.7 | 20 | 19 | 7.19 |
| GS m2-125 | 2.0 | 125 | 14 | 83.13 | 83.09 | 254.0 | 250.0 | 245.7 | 20 | 19 | 7.31 |

### Table of Spur Gear Mn 2.5

|   |                       |           |                     |           |           |           |
|---|-----------------------|-----------|---------------------|-----------|-----------|-----------|
|  | Item                  | Symbol    |                     |           |           |           |
|   | Material              |           | DIN 1.0037          |           |           |           |
|   | normal pressure angle | $\psi_n$  | 20                  |           |           |           |
|   | Out Side Diameter     | Da        | $=mn \times (z+2)$  |           |           |           |
|   | Pitch Diameter        | Do        | $=mn \times z$      |           |           |           |
|   | Root Diameter         | Df        | $=Do - 2(mn+0.167)$ |           |           |           |
|   | Bore Diameter         | Db        | -                   |           |           |           |
|   | Thickness             | T         | 19                  |           |           |           |
| Dk  | 0~50                  | 50~150    | 150~250             | 250~350   | 350~450   | 450~      |
| Tolerance   | +0.1/-0.1             | +0.2/-0.2 | +0.2/-0.3           | +0.3/-0.4 | +0.3/-0.4 | +0.3/-0.6 |
| Other tolerances according to ISO 2768-1 m  |                       |           |                     |           |           |           |

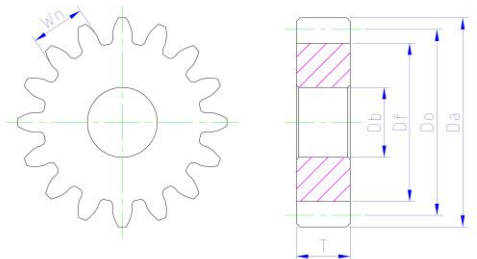
| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |      |      |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|------|------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do   | Df   | Db |       |             |
| GS m2.5-010  | 2.5 | 10 | 2  | 11.32          | 11.27 | 30.0          | 25.0 | 19.7 | 15 | 19    | 0.05        |
| GS m2.5-011  | 2.5 | 11 | 2  | 11.36          | 11.31 | 32.5          | 27.5 | 22.2 | 15 | 19    | 0.06        |
| GS m2.5-012  | 2.5 | 12 | 2  | 11.39          | 11.34 | 35.0          | 30.0 | 24.7 | 15 | 19    | 0.08        |
| GS m2.5-013  | 2.5 | 13 | 2  | 11.43          | 11.38 | 37.5          | 32.5 | 27.2 | 15 | 19    | 0.10        |
| GS m2.5-014  | 2.5 | 14 | 2  | 11.46          | 11.41 | 40.0          | 35.0 | 29.7 | 15 | 19    | 0.12        |
| GS m2.5-015  | 2.5 | 15 | 2  | 11.50          | 11.45 | 42.5          | 37.5 | 32.2 | 15 | 19    | 0.14        |
| GS m2.5-016  | 2.5 | 16 | 3  | 18.91          | 18.86 | 45.0          | 40.0 | 34.7 | 15 | 19    | 0.16        |
| GS m2.5-017  | 2.5 | 17 | 3  | 18.95          | 18.90 | 47.5          | 42.5 | 37.2 | 15 | 19    | 0.19        |
| GS m2.5-018  | 2.5 | 18 | 3  | 18.98          | 18.93 | 50.0          | 45.0 | 39.7 | 20 | 19    | 0.19        |
| GS m2.5-019  | 2.5 | 19 | 3  | 19.02          | 18.97 | 52.5          | 47.5 | 42.2 | 20 | 19    | 0.22        |
| GS m2.5-020  | 2.5 | 20 | 3  | 19.05          | 19.00 | 55.0          | 50.0 | 44.7 | 20 | 19    | 0.25        |
| GS m2.5-021  | 2.5 | 21 | 3  | 19.09          | 19.04 | 57.5          | 52.5 | 47.2 | 20 | 19    | 0.28        |
| GS m2.5-022  | 2.5 | 22 | 3  | 19.12          | 19.07 | 60.0          | 55.0 | 49.7 | 20 | 19    | 0.31        |
| GS m2.5-023  | 2.5 | 23 | 3  | 19.16          | 19.11 | 62.5          | 57.5 | 52.2 | 20 | 19    | 0.34        |
| GS m2.5-024  | 2.5 | 24 | 4  | 26.57          | 26.52 | 65.0          | 60.0 | 54.7 | 20 | 19    | 0.38        |
| GS m2.5-025  | 2.5 | 25 | 4  | 26.61          | 26.56 | 67.5          | 62.5 | 57.2 | 20 | 19    | 0.41        |
| GS m2.5-026  | 2.5 | 26 | 4  | 26.64          | 26.59 | 70.0          | 65.0 | 59.7 | 20 | 19    | 0.45        |
| GS m2.5-027  | 2.5 | 27 | 4  | 26.68          | 26.63 | 72.5          | 67.5 | 62.2 | 20 | 19    | 0.49        |
| GS m2.5-028  | 2.5 | 28 | 4  | 26.71          | 26.66 | 75.0          | 70.0 | 64.7 | 20 | 19    | 0.53        |
| GS m2.5-029  | 2.5 | 29 | 4  | 26.75          | 26.70 | 77.5          | 72.5 | 67.2 | 20 | 19    | 0.57        |
| GS m2.5-030  | 2.5 | 30 | 4  | 26.78          | 26.73 | 80.0          | 75.0 | 69.7 | 20 | 19    | 0.62        |
| GS m2.5-031  | 2.5 | 31 | 4  | 26.82          | 26.77 | 82.5          | 77.5 | 72.2 | 20 | 19    | 0.66        |
| GS m2.5-032  | 2.5 | 32 | 4  | 26.85          | 26.80 | 85.0          | 80.0 | 74.7 | 20 | 19    | 0.71        |
| GS m2.5-033  | 2.5 | 33 | 5  | 34.27          | 34.22 | 87.5          | 82.5 | 77.2 | 20 | 19    | 0.75        |
| GS m2.5-034  | 2.5 | 34 | 5  | 34.30          | 34.25 | 90.0          | 85.0 | 79.7 | 20 | 19    | 0.80        |
| GS m2.5-035  | 2.5 | 35 | 5  | 34.34          | 34.29 | 92.5          | 87.5 | 82.2 | 20 | 19    | 0.85        |
| GS m2.5-036  | 2.5 | 36 | 5  | 34.37          | 34.32 | 95.0          | 90.0 | 84.7 | 20 | 19    | 0.91        |
| GS m2.5-037  | 2.5 | 37 | 5  | 34.41          | 34.36 | 97.5          | 92.5 | 87.2 | 20 | 19    | 0.96        |
| GS m2.5-038  | 2.5 | 38 | 5  | 34.45          | 34.40 | 100.0         | 95.0 | 89.7 | 20 | 19    | 1.02        |
| GS m2.5-039  | 2.5 | 39 | 5  | 34.48          | 34.43 | 102.5         | 97.5 | 92.2 | 20 | 19    | 1.07        |

| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do    | Df    | Db |       |             |
| GS m2.5-040  | 2.5 | 40 | 5  | 34.51          | 34.46 | 105.0         | 100.0 | 94.7  | 20 | 19    | 1.13        |
| GS m2.5-041  | 2.5 | 41 | 6  | 41.93          | 41.88 | 107.5         | 102.5 | 97.2  | 20 | 19    | 1.19        |
| GS m2.5-042  | 2.5 | 42 | 6  | 41.96          | 41.91 | 110.0         | 105.0 | 99.7  | 20 | 19    | 1.25        |
| GS m2.5-043  | 2.5 | 43 | 6  | 42.00          | 41.95 | 112.5         | 107.5 | 102.2 | 20 | 19    | 1.31        |
| GS m2.5-044  | 2.5 | 44 | 6  | 42.03          | 41.98 | 115.0         | 110.0 | 104.7 | 20 | 19    | 1.38        |
| GS m2.5-045  | 2.5 | 45 | 6  | 42.07          | 42.02 | 117.5         | 112.5 | 107.2 | 20 | 19    | 1.44        |
| GS m2.5-046  | 2.5 | 46 | 6  | 42.10          | 42.05 | 120.0         | 115.0 | 109.7 | 20 | 19    | 1.51        |
| GS m2.5-047  | 2.5 | 47 | 6  | 42.14          | 42.09 | 122.5         | 117.5 | 112.2 | 20 | 19    | 1.58        |
| GS m2.5-048  | 2.5 | 48 | 6  | 42.17          | 42.12 | 125.0         | 120.0 | 114.7 | 20 | 19    | 1.65        |
| GS m2.5-049  | 2.5 | 49 | 6  | 42.21          | 42.16 | 127.5         | 122.5 | 117.2 | 20 | 19    | 1.72        |
| GS m2.5-050  | 2.5 | 50 | 7  | 49.62          | 49.57 | 130.0         | 125.0 | 119.7 | 20 | 19    | 1.79        |
| GS m2.5-051  | 2.5 | 51 | 7  | 49.66          | 49.61 | 132.5         | 127.5 | 122.2 | 20 | 19    | 1.87        |
| GS m2.5-052  | 2.5 | 52 | 7  | 49.69          | 49.64 | 135.0         | 130.0 | 124.7 | 20 | 19    | 1.94        |
| GS m2.5-053  | 2.5 | 53 | 7  | 49.73          | 49.68 | 137.5         | 132.5 | 127.2 | 20 | 19    | 2.02        |
| GS m2.5-054  | 2.5 | 54 | 7  | 49.76          | 49.71 | 140.0         | 135.0 | 129.7 | 20 | 19    | 2.10        |
| GS m2.5-055  | 2.5 | 55 | 7  | 49.80          | 49.75 | 142.5         | 137.5 | 132.2 | 20 | 19    | 2.18        |
| GS m2.5-056  | 2.5 | 56 | 7  | 49.83          | 49.78 | 145.0         | 140.0 | 134.7 | 20 | 19    | 2.26        |
| GS m2.5-057  | 2.5 | 57 | 7  | 49.87          | 49.82 | 147.5         | 142.5 | 137.2 | 20 | 19    | 2.34        |
| GS m2.5-058  | 2.5 | 58 | 7  | 49.90          | 49.85 | 150.0         | 145.0 | 139.7 | 20 | 19    | 2.43        |
| GS m2.5-059  | 2.5 | 59 | 8  | 57.32          | 57.27 | 152.5         | 147.5 | 142.2 | 20 | 19    | 2.51        |
| GS m2.5-060  | 2.5 | 60 | 8  | 57.35          | 57.30 | 155.0         | 150.0 | 144.7 | 20 | 19    | 2.60        |
| GS m2.5-061  | 2.5 | 61 | 8  | 57.39          | 57.34 | 157.5         | 152.5 | 147.2 | 20 | 19    | 2.69        |
| GS m2.5-062  | 2.5 | 62 | 8  | 57.42          | 57.37 | 160.0         | 155.0 | 149.7 | 20 | 19    | 2.78        |
| GS m2.5-063  | 2.5 | 63 | 8  | 57.46          | 57.41 | 162.5         | 157.5 | 152.2 | 20 | 19    | 2.87        |
| GS m2.5-064  | 2.5 | 64 | 8  | 57.49          | 57.44 | 165.0         | 160.0 | 154.7 | 20 | 19    | 2.97        |
| GS m2.5-065  | 2.5 | 65 | 8  | 57.53          | 57.48 | 167.5         | 162.5 | 157.2 | 20 | 19    | 3.06        |
| GS m2.5-066  | 2.5 | 66 | 8  | 57.56          | 57.51 | 170.0         | 165.0 | 159.7 | 20 | 19    | 3.16        |
| GS m2.5-067  | 2.5 | 67 | 8  | 57.60          | 57.55 | 172.5         | 167.5 | 162.2 | 20 | 19    | 3.26        |
| GS m2.5-068  | 2.5 | 68 | 9  | 65.01          | 64.96 | 175.0         | 170.0 | 164.7 | 20 | 19    | 3.36        |
| GS m2.5-069  | 2.5 | 69 | 9  | 65.05          | 65.00 | 177.5         | 172.5 | 167.2 | 20 | 19    | 3.46        |
| GS m2.5-070  | 2.5 | 70 | 9  | 65.08          | 65.03 | 180.0         | 175.0 | 169.7 | 20 | 19    | 3.56        |
| GS m2.5-071  | 2.5 | 71 | 9  | 65.12          | 65.07 | 182.5         | 177.5 | 172.2 | 20 | 19    | 3.66        |
| GS m2.5-072  | 2.5 | 72 | 9  | 65.15          | 65.10 | 185.0         | 180.0 | 174.7 | 20 | 19    | 3.77        |
| GS m2.5-073  | 2.5 | 73 | 9  | 65.19          | 65.14 | 187.5         | 182.5 | 177.2 | 20 | 19    | 3.87        |
| GS m2.5-074  | 2.5 | 74 | 9  | 65.22          | 65.17 | 190.0         | 185.0 | 179.7 | 20 | 19    | 3.98        |
| GS m2.5-075  | 2.5 | 75 | 9  | 65.26          | 65.21 | 192.5         | 187.5 | 182.2 | 20 | 19    | 4.09        |
| GS m2.5-076  | 2.5 | 76 | 9  | 65.29          | 65.24 | 195.0         | 190.0 | 184.7 | 20 | 19    | 4.20        |
| GS m2.5-077  | 2.5 | 77 | 10 | 72.71          | 72.66 | 197.5         | 192.5 | 187.2 | 20 | 19    | 4.32        |
| GS m2.5-078  | 2.5 | 78 | 10 | 72.74          | 72.69 | 200.0         | 195.0 | 189.7 | 20 | 19    | 4.43        |
| GS m2.5-079  | 2.5 | 79 | 10 | 72.78          | 72.73 | 202.5         | 197.5 | 192.2 | 20 | 19    | 4.55        |
| GS m2.5-080  | 2.5 | 80 | 10 | 72.81          | 72.76 | 205.0         | 200.0 | 194.7 | 20 | 19    | 4.66        |
| GS m2.5-081  | 2.5 | 81 | 10 | 72.85          | 72.80 | 207.5         | 202.5 | 197.2 | 20 | 19    | 4.78        |



| Product Code | mn  | z   | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|-----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |     |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m2.5-082  | 2.5 | 82  | 10 | 72.88          | 72.83  | 210.0         | 205.0 | 199.7 | 20 | 19    | 4.90        |
| GS m2.5-083  | 2.5 | 83  | 10 | 72.90          | 72.85  | 212.5         | 207.5 | 202.2 | 20 | 19    | 5.02        |
| GS m2.5-084  | 2.5 | 84  | 10 | 72.95          | 72.90  | 215.0         | 210.0 | 204.7 | 20 | 19    | 5.15        |
| GS m2.5-085  | 2.5 | 85  | 10 | 72.98          | 72.93  | 217.5         | 212.5 | 207.2 | 20 | 19    | 5.27        |
| GS m2.5-086  | 2.5 | 86  | 11 | 80.40          | 80.35  | 220.0         | 215.0 | 209.7 | 20 | 19    | 5.40        |
| GS m2.5-087  | 2.5 | 87  | 11 | 80.44          | 80.39  | 222.5         | 217.5 | 212.2 | 20 | 19    | 5.52        |
| GS m2.5-088  | 2.5 | 88  | 11 | 80.47          | 80.42  | 225.0         | 220.0 | 214.7 | 20 | 19    | 5.65        |
| GS m2.5-089  | 2.5 | 89  | 11 | 80.51          | 80.46  | 227.5         | 222.5 | 217.2 | 20 | 19    | 5.78        |
| GS m2.5-090  | 2.5 | 90  | 11 | 80.54          | 80.49  | 230.0         | 225.0 | 219.7 | 20 | 19    | 5.91        |
| GS m2.5-091  | 2.5 | 91  | 11 | 80.58          | 80.53  | 232.5         | 227.5 | 222.2 | 20 | 19    | 6.05        |
| GS m2.5-092  | 2.5 | 92  | 11 | 80.61          | 80.56  | 235.0         | 230.0 | 224.7 | 20 | 19    | 6.18        |
| GS m2.5-093  | 2.5 | 93  | 11 | 80.65          | 80.60  | 237.5         | 232.5 | 227.2 | 20 | 19    | 6.32        |
| GS m2.5-094  | 2.5 | 94  | 11 | 80.68          | 80.63  | 240.0         | 235.0 | 229.7 | 20 | 19    | 6.46        |
| GS m2.5-095  | 2.5 | 95  | 12 | 88.10          | 88.05  | 242.5         | 237.5 | 232.2 | 20 | 19    | 6.59        |
| GS m2.5-096  | 2.5 | 96  | 12 | 88.14          | 88.09  | 245.0         | 240.0 | 234.7 | 20 | 19    | 6.73        |
| GS m2.5-097  | 2.5 | 97  | 12 | 88.17          | 88.12  | 247.5         | 242.5 | 237.2 | 20 | 19    | 6.88        |
| GS m2.5-098  | 2.5 | 98  | 12 | 88.21          | 88.16  | 250.0         | 245.0 | 239.7 | 20 | 19    | 7.02        |
| GS m2.5-099  | 2.5 | 99  | 12 | 88.24          | 88.19  | 252.5         | 247.5 | 242.2 | 20 | 19    | 7.17        |
| GS m2.5-100  | 2.5 | 100 | 12 | 88.28          | 88.23  | 255.0         | 250.0 | 244.7 | 20 | 19    | 7.31        |
| GS m2.5-101  | 2.5 | 101 | 12 | 88.31          | 88.26  | 257.5         | 252.5 | 247.2 | 20 | 19    | 7.46        |
| GS m2.5-102  | 2.5 | 102 | 12 | 88.35          | 88.30  | 260.0         | 255.0 | 249.7 | 20 | 19    | 7.61        |
| GS m2.5-103  | 2.5 | 103 | 12 | 88.38          | 88.33  | 262.5         | 257.5 | 252.2 | 20 | 19    | 7.76        |
| GS m2.5-104  | 2.5 | 104 | 13 | 95.80          | 95.75  | 265.0         | 260.0 | 254.7 | 20 | 19    | 7.91        |
| GS m2.5-105  | 2.5 | 105 | 13 | 95.83          | 95.78  | 267.5         | 262.5 | 257.2 | 20 | 19    | 8.07        |
| GS m2.5-106  | 2.5 | 106 | 13 | 95.87          | 95.82  | 270.0         | 265.0 | 259.7 | 20 | 19    | 8.22        |
| GS m2.5-107  | 2.5 | 107 | 13 | 95.90          | 95.85  | 272.5         | 267.5 | 262.2 | 20 | 19    | 8.38        |
| GS m2.5-108  | 2.5 | 108 | 13 | 95.94          | 95.89  | 275.0         | 270.0 | 264.7 | 20 | 19    | 8.54        |
| GS m2.5-109  | 2.5 | 109 | 13 | 95.97          | 95.92  | 277.5         | 272.5 | 267.2 | 20 | 19    | 8.70        |
| GS m2.5-110  | 2.5 | 110 | 13 | 96.01          | 95.96  | 280.0         | 275.0 | 269.7 | 20 | 19    | 8.86        |
| GS m2.5-111  | 2.5 | 111 | 13 | 96.04          | 95.99  | 282.5         | 277.5 | 272.2 | 20 | 19    | 9.02        |
| GS m2.5-112  | 2.5 | 112 | 13 | 96.08          | 96.03  | 285.0         | 280.0 | 274.7 | 20 | 19    | 9.18        |
| GS m2.5-113  | 2.5 | 113 | 14 | 103.49         | 103.44 | 287.5         | 282.5 | 277.2 | 20 | 19    | 9.35        |
| GS m2.5-114  | 2.5 | 114 | 14 | 103.53         | 103.48 | 290.0         | 285.0 | 279.7 | 20 | 19    | 9.52        |
| GS m2.5-115  | 2.5 | 115 | 14 | 103.54         | 103.49 | 292.5         | 287.5 | 282.2 | 20 | 19    | 9.68        |
| GS m2.5-116  | 2.5 | 116 | 14 | 103.60         | 103.55 | 295.0         | 290.0 | 284.7 | 20 | 19    | 9.85        |
| GS m2.5-117  | 2.5 | 117 | 14 | 103.63         | 103.58 | 297.5         | 292.5 | 287.2 | 20 | 19    | 10.03       |
| GS m2.5-118  | 2.5 | 118 | 14 | 103.67         | 103.62 | 300.0         | 295.0 | 289.7 | 20 | 19    | 10.20       |
| GS m2.5-119  | 2.5 | 119 | 14 | 103.70         | 103.65 | 302.5         | 297.5 | 292.2 | 20 | 19    | 10.37       |
| GS m2.5-120  | 2.5 | 120 | 14 | 103.74         | 103.69 | 305.0         | 300.0 | 294.7 | 20 | 19    | 10.55       |
| GS m2.5-121  | 2.5 | 121 | 14 | 103.77         | 103.72 | 307.5         | 302.5 | 297.2 | 20 | 19    | 10.73       |
| GS m2.5-122  | 2.5 | 122 | 14 | 103.81         | 103.76 | 310.0         | 305.0 | 299.7 | 20 | 19    | 10.91       |
| GS m2.5-123  | 2.5 | 123 | 14 | 103.84         | 103.79 | 312.5         | 307.5 | 302.2 | 20 | 19    | 11.09       |
| GS m2.5-124  | 2.5 | 124 | 14 | 103.88         | 103.83 | 315.0         | 310.0 | 304.7 | 20 | 19    | 11.27       |
| GS m2.5-125  | 2.5 | 125 | 14 | 103.91         | 103.86 | 317.5         | 312.5 | 307.2 | 20 | 19    | 11.45       |

### Table of Spur Gear Mn 3.0

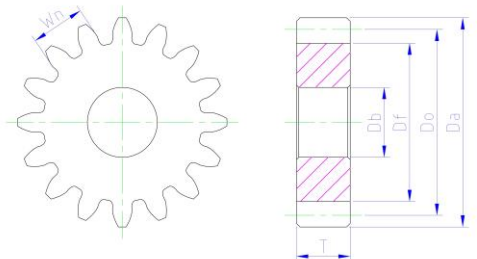
|   |                       |           |                     |           |           |           |
|---|-----------------------|-----------|---------------------|-----------|-----------|-----------|
|  | Item                  | Symbol    |                     |           |           |           |
|   | Material              |           | DIN 1.0037          |           |           |           |
|   | normal pressure angle | $\psi_n$  | 20                  |           |           |           |
|   | Out Side Diameter     | Da        | $=mn \times (z+2)$  |           |           |           |
|   | Pitch Diameter        | Do        | $=mn \times z$      |           |           |           |
|   | Root Diameter         | Df        | $=Do - 2(mn+0.167)$ |           |           |           |
|   | Bore Diameter         | Db        | -                   |           |           |           |
|   | Thickness             | T         | 19                  |           |           |           |
| Dk  | 0~50                  | 50~150    | 150~250             | 250~350   | 350~450   | 450~      |
| Tolerance   | +0.1/-0.1             | +0.2/-0.2 | +0.2/-0.3           | +0.3/-0.4 | +0.3/-0.4 | +0.3/-0.6 |
| Other tolerances according to ISO 2768-1 m  |                       |           |                     |           |           |           |

| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do    | Df    | Db |       |             |
| GS m3-010    | 3.0 | 10 | 2  | 13.58          | 13.53 | 36.0          | 30.0  | 23.7  | 15 | 29    | 0.12        |
| GS m3-011    | 3.0 | 11 | 2  | 13.63          | 13.58 | 39.0          | 33.0  | 26.7  | 15 | 29    | 0.16        |
| GS m3-012    | 3.0 | 12 | 2  | 13.67          | 13.62 | 42.0          | 36.0  | 29.7  | 15 | 29    | 0.19        |
| GS m3-013    | 3.0 | 13 | 2  | 13.71          | 13.66 | 45.0          | 39.0  | 32.7  | 15 | 29    | 0.23        |
| GS m3-014    | 3.0 | 14 | 2  | 13.75          | 13.70 | 48.0          | 42.0  | 35.7  | 15 | 29    | 0.28        |
| GS m3-015    | 3.0 | 15 | 2  | 13.79          | 13.74 | 51.0          | 45.0  | 38.7  | 20 | 29    | 0.29        |
| GS m3-016    | 3.0 | 16 | 3  | 22.69          | 22.64 | 54.0          | 48.0  | 41.7  | 20 | 29    | 0.34        |
| GS m3-017    | 3.0 | 17 | 3  | 22.74          | 22.69 | 57.0          | 51.0  | 44.7  | 20 | 29    | 0.40        |
| GS m3-018    | 3.0 | 18 | 3  | 22.78          | 22.73 | 60.0          | 54.0  | 47.7  | 20 | 29    | 0.45        |
| GS m3-019    | 3.0 | 19 | 3  | 22.82          | 22.77 | 63.0          | 57.0  | 50.7  | 20 | 29    | 0.51        |
| GS m3-020    | 3.0 | 20 | 3  | 22.86          | 22.81 | 66.0          | 60.0  | 53.7  | 20 | 29    | 0.58        |
| GS m3-021    | 3.0 | 21 | 3  | 22.90          | 22.85 | 69.0          | 63.0  | 56.7  | 20 | 29    | 0.64        |
| GS m3-022    | 3.0 | 22 | 3  | 22.95          | 22.90 | 72.0          | 66.0  | 59.7  | 20 | 29    | 0.71        |
| GS m3-023    | 3.0 | 23 | 3  | 22.99          | 22.94 | 75.0          | 69.0  | 62.7  | 20 | 29    | 0.78        |
| GS m3-024    | 3.0 | 24 | 4  | 31.89          | 31.84 | 78.0          | 72.0  | 65.7  | 20 | 29    | 0.86        |
| GS m3-025    | 3.0 | 25 | 4  | 31.93          | 31.88 | 81.0          | 75.0  | 68.7  | 20 | 29    | 0.94        |
| GS m3-026    | 3.0 | 26 | 4  | 31.97          | 31.92 | 84.0          | 78.0  | 71.7  | 20 | 29    | 1.02        |
| GS m3-027    | 3.0 | 27 | 4  | 32.01          | 31.96 | 87.0          | 81.0  | 74.7  | 20 | 29    | 1.11        |
| GS m3-028    | 3.0 | 28 | 4  | 32.05          | 32.00 | 90.0          | 84.0  | 77.7  | 20 | 29    | 1.20        |
| GS m3-029    | 3.0 | 29 | 4  | 32.10          | 32.05 | 93.0          | 87.0  | 80.7  | 20 | 29    | 1.29        |
| GS m3-030    | 3.0 | 30 | 4  | 32.14          | 32.09 | 96.0          | 90.0  | 83.7  | 20 | 29    | 1.38        |
| GS m3-031    | 3.0 | 31 | 4  | 32.18          | 32.13 | 99.0          | 93.0  | 86.7  | 20 | 29    | 1.48        |
| GS m3-032    | 3.0 | 32 | 4  | 32.22          | 32.17 | 102.0         | 96.0  | 89.7  | 20 | 29    | 1.58        |
| GS m3-033    | 3.0 | 33 | 5  | 41.12          | 41.07 | 105.0         | 99.0  | 92.7  | 20 | 29    | 1.69        |
| GS m3-034    | 3.0 | 34 | 5  | 41.16          | 41.11 | 108.0         | 102.0 | 95.7  | 20 | 29    | 1.80        |
| GS m3-035    | 3.0 | 35 | 5  | 41.20          | 41.15 | 111.0         | 105.0 | 98.7  | 20 | 29    | 1.91        |
| GS m3-036    | 3.0 | 36 | 5  | 41.25          | 41.20 | 114.0         | 108.0 | 101.7 | 20 | 29    | 2.02        |
| GS m3-037    | 3.0 | 37 | 5  | 41.29          | 41.24 | 117.0         | 111.0 | 104.7 | 20 | 29    | 2.14        |
| GS m3-038    | 3.0 | 38 | 5  | 41.34          | 41.29 | 120.0         | 114.0 | 107.7 | 20 | 29    | 2.26        |
| GS m3-039    | 3.0 | 39 | 5  | 41.37          | 41.32 | 123.0         | 117.0 | 110.7 | 20 | 29    | 2.39        |

| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do    | Df    | Db |       |             |
| GS m3-040    | 3.0 | 40 | 5  | 41.41          | 41.36 | 126.0         | 120.0 | 113.7 | 20 | 29    | 2.52        |
| GS m3-041    | 3.0 | 41 | 6  | 50.31          | 50.26 | 129.0         | 123.0 | 116.7 | 20 | 29    | 2.65        |
| GS m3-042    | 3.0 | 42 | 6  | 50.36          | 50.31 | 132.0         | 126.0 | 119.7 | 20 | 29    | 2.78        |
| GS m3-043    | 3.0 | 43 | 6  | 50.40          | 50.35 | 135.0         | 129.0 | 122.7 | 20 | 29    | 2.92        |
| GS m3-044    | 3.0 | 44 | 6  | 50.44          | 50.39 | 138.0         | 132.0 | 125.7 | 20 | 29    | 3.06        |
| GS m3-045    | 3.0 | 45 | 6  | 50.48          | 50.43 | 141.0         | 135.0 | 128.7 | 20 | 29    | 3.20        |
| GS m3-046    | 3.0 | 46 | 6  | 50.52          | 50.47 | 144.0         | 138.0 | 131.7 | 20 | 29    | 3.35        |
| GS m3-047    | 3.0 | 47 | 6  | 50.57          | 50.52 | 147.0         | 141.0 | 134.7 | 20 | 29    | 3.50        |
| GS m3-048    | 3.0 | 48 | 6  | 50.61          | 50.56 | 150.0         | 144.0 | 137.7 | 20 | 29    | 3.65        |
| GS m3-049    | 3.0 | 49 | 6  | 50.65          | 50.60 | 153.0         | 147.0 | 140.7 | 20 | 29    | 3.81        |
| GS m3-050    | 3.0 | 50 | 7  | 59.55          | 59.50 | 156.0         | 150.0 | 143.7 | 20 | 29    | 3.97        |
| GS m3-051    | 3.0 | 51 | 7  | 59.59          | 59.54 | 159.0         | 153.0 | 146.7 | 20 | 29    | 4.13        |
| GS m3-052    | 3.0 | 52 | 7  | 59.63          | 59.58 | 162.0         | 156.0 | 149.7 | 20 | 29    | 4.30        |
| GS m3-053    | 3.0 | 53 | 7  | 59.67          | 59.62 | 165.0         | 159.0 | 152.7 | 20 | 29    | 4.47        |
| GS m3-054    | 3.0 | 54 | 7  | 59.72          | 59.67 | 168.0         | 162.0 | 155.7 | 20 | 29    | 4.64        |
| GS m3-055    | 3.0 | 55 | 7  | 59.76          | 59.71 | 171.0         | 165.0 | 158.7 | 20 | 29    | 4.82        |
| GS m3-056    | 3.0 | 56 | 7  | 59.80          | 59.75 | 174.0         | 168.0 | 161.7 | 20 | 29    | 5.00        |
| GS m3-057    | 3.0 | 57 | 7  | 59.84          | 59.79 | 177.0         | 171.0 | 164.7 | 20 | 29    | 5.18        |
| GS m3-058    | 3.0 | 58 | 7  | 59.88          | 59.83 | 180.0         | 174.0 | 167.7 | 20 | 29    | 5.37        |
| GS m3-059    | 3.0 | 59 | 8  | 68.78          | 68.73 | 183.0         | 177.0 | 170.7 | 20 | 29    | 5.56        |
| GS m3-060    | 3.0 | 60 | 8  | 68.82          | 68.77 | 186.0         | 180.0 | 173.7 | 20 | 29    | 5.75        |
| GS m3-061    | 3.0 | 61 | 8  | 68.87          | 68.82 | 189.0         | 183.0 | 176.7 | 20 | 29    | 5.95        |
| GS m3-062    | 3.0 | 62 | 8  | 68.91          | 68.86 | 192.0         | 186.0 | 179.7 | 20 | 29    | 6.15        |
| GS m3-063    | 3.0 | 63 | 8  | 68.95          | 68.90 | 195.0         | 189.0 | 182.7 | 20 | 29    | 6.35        |
| GS m3-064    | 3.0 | 64 | 8  | 68.99          | 68.94 | 198.0         | 192.0 | 185.7 | 20 | 29    | 6.55        |
| GS m3-065    | 3.0 | 65 | 8  | 69.03          | 68.98 | 201.0         | 195.0 | 188.7 | 20 | 29    | 6.76        |
| GS m3-066    | 3.0 | 66 | 8  | 69.08          | 69.03 | 204.0         | 198.0 | 191.7 | 20 | 29    | 6.97        |
| GS m3-067    | 3.0 | 67 | 8  | 69.12          | 69.07 | 207.0         | 201.0 | 194.7 | 20 | 29    | 7.19        |
| GS m3-068    | 3.0 | 68 | 9  | 78.02          | 77.97 | 210.0         | 204.0 | 197.7 | 20 | 29    | 7.41        |
| GS m3-069    | 3.0 | 69 | 9  | 78.06          | 78.01 | 213.0         | 207.0 | 200.7 | 20 | 29    | 7.63        |
| GS m3-070    | 3.0 | 70 | 9  | 78.10          | 78.05 | 216.0         | 210.0 | 203.7 | 20 | 29    | 7.85        |
| GS m3-071    | 3.0 | 71 | 9  | 78.14          | 78.09 | 219.0         | 213.0 | 206.7 | 20 | 29    | 8.08        |
| GS m3-072    | 3.0 | 72 | 9  | 78.18          | 78.13 | 222.0         | 216.0 | 209.7 | 20 | 29    | 8.31        |
| GS m3-073    | 3.0 | 73 | 9  | 78.23          | 78.18 | 225.0         | 219.0 | 212.7 | 20 | 29    | 8.55        |
| GS m3-074    | 3.0 | 74 | 9  | 78.27          | 78.22 | 228.0         | 222.0 | 215.7 | 20 | 29    | 8.78        |
| GS m3-075    | 3.0 | 75 | 9  | 78.31          | 78.26 | 231.0         | 225.0 | 218.7 | 20 | 29    | 9.03        |
| GS m3-076    | 3.0 | 76 | 9  | 78.35          | 78.30 | 234.0         | 228.0 | 221.7 | 20 | 29    | 9.27        |
| GS m3-077    | 3.0 | 77 | 10 | 87.25          | 87.20 | 237.0         | 231.0 | 224.7 | 20 | 29    | 9.52        |
| GS m3-078    | 3.0 | 78 | 10 | 87.29          | 87.24 | 240.0         | 234.0 | 227.7 | 20 | 29    | 9.77        |
| GS m3-079    | 3.0 | 79 | 10 | 87.34          | 87.29 | 243.0         | 237.0 | 230.7 | 20 | 29    | 10.02       |
| GS m3-080    | 3.0 | 80 | 10 | 87.38          | 87.33 | 246.0         | 240.0 | 233.7 | 20 | 29    | 10.28       |
| GS m3-081    | 3.0 | 81 | 10 | 87.42          | 87.37 | 249.0         | 243.0 | 236.7 | 20 | 29    | 10.54       |

| Product Code | mn  | z   | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|-----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |     |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m3-082    | 3.0 | 82  | 10 | 87.45          | 87.40  | 252.0         | 246.0 | 239.7 | 20 | 29    | 10.80       |
| GS m3-083    | 3.0 | 83  | 10 | 87.48          | 87.43  | 255.0         | 249.0 | 242.7 | 20 | 29    | 11.07       |
| GS m3-084    | 3.0 | 84  | 10 | 87.54          | 87.49  | 258.0         | 252.0 | 245.7 | 20 | 29    | 11.34       |
| GS m3-085    | 3.0 | 85  | 10 | 87.57          | 87.52  | 261.0         | 255.0 | 248.7 | 20 | 29    | 11.61       |
| GS m3-086    | 3.0 | 86  | 11 | 96.48          | 96.43  | 264.0         | 258.0 | 251.7 | 20 | 29    | 11.89       |
| GS m3-087    | 3.0 | 87  | 11 | 96.53          | 96.48  | 267.0         | 261.0 | 254.7 | 20 | 29    | 12.17       |
| GS m3-088    | 3.0 | 88  | 11 | 96.57          | 96.52  | 270.0         | 264.0 | 257.7 | 20 | 29    | 12.45       |
| GS m3-089    | 3.0 | 89  | 11 | 96.61          | 96.56  | 273.0         | 267.0 | 260.7 | 20 | 29    | 12.74       |
| GS m3-090    | 3.0 | 90  | 11 | 96.65          | 96.60  | 276.0         | 270.0 | 263.7 | 20 | 29    | 13.03       |
| GS m3-091    | 3.0 | 91  | 11 | 96.69          | 96.64  | 279.0         | 273.0 | 266.7 | 20 | 29    | 13.32       |
| GS m3-092    | 3.0 | 92  | 11 | 96.74          | 96.69  | 282.0         | 276.0 | 269.7 | 20 | 29    | 13.62       |
| GS m3-093    | 3.0 | 93  | 11 | 96.78          | 96.73  | 285.0         | 279.0 | 272.7 | 20 | 29    | 13.92       |
| GS m3-094    | 3.0 | 94  | 11 | 96.82          | 96.77  | 288.0         | 282.0 | 275.7 | 20 | 29    | 14.22       |
| GS m3-095    | 3.0 | 95  | 12 | 105.72         | 105.67 | 291.0         | 285.0 | 278.7 | 20 | 29    | 14.52       |
| GS m3-096    | 3.0 | 96  | 12 | 105.76         | 105.71 | 294.0         | 288.0 | 281.7 | 20 | 29    | 14.83       |
| GS m3-097    | 3.0 | 97  | 12 | 105.80         | 105.75 | 297.0         | 291.0 | 284.7 | 20 | 29    | 15.15       |
| GS m3-098    | 3.0 | 98  | 12 | 105.85         | 105.80 | 300.0         | 294.0 | 287.7 | 20 | 29    | 15.46       |
| GS m3-099    | 3.0 | 99  | 12 | 105.89         | 105.84 | 303.0         | 297.0 | 290.7 | 20 | 29    | 15.78       |
| GS m3-100    | 3.0 | 100 | 12 | 105.93         | 105.88 | 306.0         | 300.0 | 293.7 | 20 | 29    | 16.10       |
| GS m3-101    | 3.0 | 101 | 12 | 105.97         | 105.92 | 309.0         | 303.0 | 296.7 | 20 | 29    | 16.43       |
| GS m3-102    | 3.0 | 102 | 12 | 106.01         | 105.96 | 312.0         | 306.0 | 299.7 | 20 | 29    | 16.76       |
| GS m3-103    | 3.0 | 103 | 12 | 106.06         | 106.01 | 315.0         | 309.0 | 302.7 | 20 | 29    | 17.09       |
| GS m3-104    | 3.0 | 104 | 13 | 114.95         | 114.90 | 318.0         | 312.0 | 305.7 | 20 | 29    | 17.42       |
| GS m3-105    | 3.0 | 105 | 13 | 115.00         | 114.95 | 321.0         | 315.0 | 308.7 | 20 | 29    | 17.76       |
| GS m3-106    | 3.0 | 106 | 13 | 115.04         | 114.99 | 324.0         | 318.0 | 311.7 | 20 | 29    | 18.10       |
| GS m3-107    | 3.0 | 107 | 13 | 115.08         | 115.03 | 327.0         | 321.0 | 314.7 | 20 | 29    | 18.45       |
| GS m3-108    | 3.0 | 108 | 13 | 115.12         | 115.07 | 330.0         | 324.0 | 317.7 | 20 | 29    | 18.79       |
| GS m3-109    | 3.0 | 109 | 13 | 115.16         | 115.11 | 333.0         | 327.0 | 320.7 | 20 | 29    | 19.14       |
| GS m3-110    | 3.0 | 110 | 13 | 115.21         | 115.16 | 336.0         | 330.0 | 323.7 | 20 | 29    | 19.50       |
| GS m3-111    | 3.0 | 111 | 13 | 115.25         | 115.20 | 339.0         | 333.0 | 326.7 | 20 | 29    | 19.86       |
| GS m3-112    | 3.0 | 112 | 13 | 115.29         | 115.24 | 342.0         | 336.0 | 329.7 | 20 | 29    | 20.22       |
| GS m3-113    | 3.0 | 113 | 14 | 124.19         | 124.14 | 345.0         | 339.0 | 332.7 | 20 | 29    | 20.58       |
| GS m3-114    | 3.0 | 114 | 14 | 124.23         | 124.18 | 348.0         | 342.0 | 335.7 | 20 | 29    | 20.95       |
| GS m3-115    | 3.0 | 115 | 14 | 124.24         | 124.19 | 351.0         | 345.0 | 338.7 | 20 | 29    | 21.32       |
| GS m3-116    | 3.0 | 116 | 14 | 124.32         | 124.27 | 354.0         | 348.0 | 341.7 | 20 | 29    | 21.69       |
| GS m3-117    | 3.0 | 117 | 14 | 124.36         | 124.31 | 357.0         | 351.0 | 344.7 | 20 | 29    | 22.07       |
| GS m3-118    | 3.0 | 118 | 14 | 124.40         | 124.35 | 360.0         | 354.0 | 347.7 | 20 | 29    | 22.45       |
| GS m3-119    | 3.0 | 119 | 14 | 124.44         | 124.39 | 363.0         | 357.0 | 350.7 | 20 | 29    | 22.83       |
| GS m3-120    | 3.0 | 120 | 14 | 124.48         | 124.43 | 366.0         | 360.0 | 353.7 | 20 | 29    | 23.22       |
| GS m3-121    | 3.0 | 121 | 14 | 124.53         | 124.48 | 369.0         | 363.0 | 356.7 | 20 | 29    | 23.61       |
| GS m3-122    | 3.0 | 122 | 14 | 124.57         | 124.52 | 372.0         | 366.0 | 359.7 | 20 | 29    | 24.00       |
| GS m3-123    | 3.0 | 123 | 14 | 124.61         | 124.56 | 375.0         | 369.0 | 362.7 | 20 | 29    | 24.40       |
| GS m3-124    | 3.0 | 124 | 14 | 124.65         | 124.60 | 378.0         | 372.0 | 365.7 | 20 | 29    | 24.80       |
| GS m3-125    | 3.0 | 125 | 14 | 124.69         | 124.64 | 381.0         | 375.0 | 368.7 | 20 | 29    | 25.20       |

### Table of Spur Gear Mn 3.5

|   |                       |           |                     |           |           |           |
|---|-----------------------|-----------|---------------------|-----------|-----------|-----------|
|  | Item                  | Symbol    |                     |           |           |           |
|   | Material              |           | DIN 1.0037          |           |           |           |
|   | normal pressure angle | $\psi_n$  | 20                  |           |           |           |
|   | Out Side Diameter     | Da        | $=mn \times (z+2)$  |           |           |           |
|   | Pitch Diameter        | Do        | $=mn \times z$      |           |           |           |
|   | Root Diameter         | Df        | $=Do - 2(mn+0.167)$ |           |           |           |
|   | Bore Diameter         | Db        | -                   |           |           |           |
|   | Thickness             | T         | 19                  |           |           |           |
| Dk  | 0~50                  | 50~150    | 150~250             | 250~350   | 350~450   | 450~      |
| Tolerance   | +0.1/-0.1             | +0.2/-0.2 | +0.2/-0.3           | +0.3/-0.4 | +0.3/-0.4 | +0.3/-0.6 |
| Other tolerances according to ISO 2768-1 m  |                       |           |                     |           |           |           |

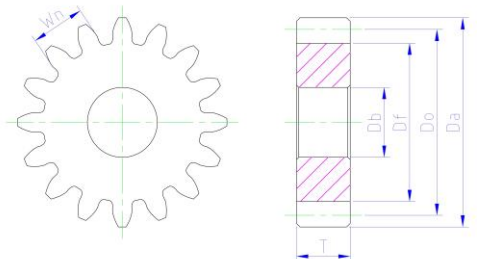
| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do    | Df    | Db |       |             |
| GS m3.5-010  | 3.5 | 10 | 2  | 15.85          | 15.81 | 42.0          | 35.0  | 27.7  | 15 | 29    | 0.18        |
| GS m3.5-011  | 3.5 | 11 | 2  | 15.90          | 15.86 | 45.5          | 38.5  | 31.2  | 15 | 29    | 0.23        |
| GS m3.5-012  | 3.5 | 12 | 2  | 15.95          | 15.91 | 49.0          | 42.0  | 34.7  | 15 | 29    | 0.28        |
| GS m3.5-013  | 3.5 | 13 | 2  | 16.00          | 15.96 | 52.5          | 45.5  | 38.2  | 20 | 29    | 0.30        |
| GS m3.5-014  | 3.5 | 14 | 2  | 16.05          | 16.01 | 56.0          | 49.0  | 41.7  | 20 | 29    | 0.36        |
| GS m3.5-015  | 3.5 | 15 | 2  | 16.09          | 16.05 | 59.5          | 52.5  | 45.2  | 20 | 29    | 0.42        |
| GS m3.5-016  | 3.5 | 16 | 3  | 26.48          | 26.44 | 63.0          | 56.0  | 48.7  | 20 | 29    | 0.49        |
| GS m3.5-017  | 3.5 | 17 | 3  | 26.52          | 26.48 | 66.5          | 59.5  | 52.2  | 20 | 29    | 0.56        |
| GS m3.5-018  | 3.5 | 18 | 3  | 26.57          | 26.53 | 70.0          | 63.0  | 55.7  | 20 | 29    | 0.64        |
| GS m3.5-019  | 3.5 | 19 | 3  | 26.62          | 26.58 | 73.5          | 66.5  | 59.2  | 20 | 29    | 0.72        |
| GS m3.5-020  | 3.5 | 20 | 3  | 26.67          | 26.63 | 77.0          | 70.0  | 62.7  | 20 | 29    | 0.81        |
| GS m3.5-021  | 3.5 | 21 | 3  | 26.72          | 26.68 | 80.5          | 73.5  | 66.2  | 20 | 29    | 0.90        |
| GS m3.5-022  | 3.5 | 22 | 3  | 26.77          | 26.73 | 84.0          | 77.0  | 69.7  | 20 | 29    | 0.99        |
| GS m3.5-023  | 3.5 | 23 | 3  | 26.82          | 26.78 | 87.5          | 80.5  | 73.2  | 20 | 29    | 1.09        |
| GS m3.5-024  | 3.5 | 24 | 4  | 37.20          | 37.16 | 91.0          | 84.0  | 76.7  | 20 | 29    | 1.20        |
| GS m3.5-025  | 3.5 | 25 | 4  | 37.25          | 37.21 | 94.5          | 87.5  | 80.2  | 20 | 29    | 1.30        |
| GS m3.5-026  | 3.5 | 26 | 4  | 37.30          | 37.26 | 98.0          | 91.0  | 83.7  | 20 | 29    | 1.42        |
| GS m3.5-027  | 3.5 | 27 | 4  | 37.35          | 37.31 | 101.5         | 94.5  | 87.2  | 20 | 29    | 1.53        |
| GS m3.5-028  | 3.5 | 28 | 4  | 37.40          | 37.36 | 105.0         | 98.0  | 90.7  | 20 | 29    | 1.65        |
| GS m3.5-029  | 3.5 | 29 | 4  | 37.45          | 37.41 | 108.5         | 101.5 | 94.2  | 20 | 29    | 1.78        |
| GS m3.5-030  | 3.5 | 30 | 4  | 37.49          | 37.45 | 112.0         | 105.0 | 97.7  | 20 | 29    | 1.91        |
| GS m3.5-031  | 3.5 | 31 | 4  | 37.54          | 37.50 | 115.5         | 108.5 | 101.2 | 20 | 29    | 2.04        |
| GS m3.5-032  | 3.5 | 32 | 4  | 37.59          | 37.55 | 119.0         | 112.0 | 104.7 | 20 | 29    | 2.18        |
| GS m3.5-033  | 3.5 | 33 | 5  | 47.97          | 47.93 | 122.5         | 115.5 | 108.2 | 20 | 29    | 2.33        |
| GS m3.5-034  | 3.5 | 34 | 5  | 48.02          | 47.98 | 126.0         | 119.0 | 111.7 | 20 | 29    | 2.47        |
| GS m3.5-035  | 3.5 | 35 | 5  | 48.07          | 48.03 | 129.5         | 122.5 | 115.2 | 20 | 29    | 2.62        |
| GS m3.5-036  | 3.5 | 36 | 5  | 48.12          | 48.08 | 133.0         | 126.0 | 118.7 | 20 | 29    | 2.78        |
| GS m3.5-037  | 3.5 | 37 | 5  | 48.17          | 48.13 | 136.5         | 129.5 | 122.2 | 20 | 29    | 2.94        |
| GS m3.5-038  | 3.5 | 38 | 5  | 48.23          | 48.19 | 140.0         | 133.0 | 125.7 | 20 | 29    | 3.11        |
| GS m3.5-039  | 3.5 | 39 | 5  | 48.27          | 48.23 | 143.5         | 136.5 | 129.2 | 20 | 29    | 3.28        |

| Product Code | mn  | z  | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m3.5-040  | 3.5 | 40 | 5  | 48.32          | 48.28  | 147.0         | 140.0 | 132.7 | 20 | 29    | 3.45        |
| GS m3.5-041  | 3.5 | 41 | 6  | 58.70          | 58.66  | 150.5         | 143.5 | 136.2 | 20 | 29    | 3.63        |
| GS m3.5-042  | 3.5 | 42 | 6  | 58.75          | 58.71  | 154.0         | 147.0 | 139.7 | 20 | 29    | 3.81        |
| GS m3.5-043  | 3.5 | 43 | 6  | 58.80          | 58.76  | 157.5         | 150.5 | 143.2 | 20 | 29    | 4.00        |
| GS m3.5-044  | 3.5 | 44 | 6  | 58.85          | 58.81  | 161.0         | 154.0 | 146.7 | 20 | 29    | 4.19        |
| GS m3.5-045  | 3.5 | 45 | 6  | 58.89          | 58.85  | 164.5         | 157.5 | 150.2 | 20 | 29    | 4.39        |
| GS m3.5-046  | 3.5 | 46 | 6  | 58.94          | 58.90  | 168.0         | 161.0 | 153.7 | 20 | 29    | 4.59        |
| GS m3.5-047  | 3.5 | 47 | 6  | 58.99          | 58.95  | 171.5         | 164.5 | 157.2 | 20 | 29    | 4.79        |
| GS m3.5-048  | 3.5 | 48 | 6  | 59.04          | 59.00  | 175.0         | 168.0 | 160.7 | 20 | 29    | 5.00        |
| GS m3.5-049  | 3.5 | 49 | 6  | 59.09          | 59.05  | 178.5         | 171.5 | 164.2 | 20 | 29    | 5.21        |
| GS m3.5-050  | 3.5 | 50 | 7  | 69.47          | 69.43  | 182.0         | 175.0 | 167.7 | 20 | 29    | 5.43        |
| GS m3.5-051  | 3.5 | 51 | 7  | 69.52          | 69.48  | 185.5         | 178.5 | 171.2 | 20 | 29    | 5.65        |
| GS m3.5-052  | 3.5 | 52 | 7  | 69.57          | 69.53  | 189.0         | 182.0 | 174.7 | 20 | 29    | 5.88        |
| GS m3.5-053  | 3.5 | 53 | 7  | 69.62          | 69.58  | 192.5         | 185.5 | 178.2 | 20 | 29    | 6.11        |
| GS m3.5-054  | 3.5 | 54 | 7  | 69.67          | 69.63  | 196.0         | 189.0 | 181.7 | 20 | 29    | 6.35        |
| GS m3.5-055  | 3.5 | 55 | 7  | 69.72          | 69.68  | 199.5         | 192.5 | 185.2 | 20 | 29    | 6.59        |
| GS m3.5-056  | 3.5 | 56 | 7  | 69.77          | 69.73  | 203.0         | 196.0 | 188.7 | 20 | 29    | 6.83        |
| GS m3.5-057  | 3.5 | 57 | 7  | 69.82          | 69.78  | 206.5         | 199.5 | 192.2 | 20 | 29    | 7.08        |
| GS m3.5-058  | 3.5 | 58 | 7  | 69.86          | 69.82  | 210.0         | 203.0 | 195.7 | 20 | 29    | 7.33        |
| GS m3.5-059  | 3.5 | 59 | 8  | 80.25          | 80.21  | 213.5         | 206.5 | 199.2 | 20 | 29    | 7.59        |
| GS m3.5-060  | 3.5 | 60 | 8  | 80.29          | 80.25  | 217.0         | 210.0 | 202.7 | 20 | 29    | 7.85        |
| GS m3.5-061  | 3.5 | 61 | 8  | 80.34          | 80.30  | 220.5         | 213.5 | 206.2 | 20 | 29    | 8.12        |
| GS m3.5-062  | 3.5 | 62 | 8  | 80.39          | 80.35  | 224.0         | 217.0 | 209.7 | 20 | 29    | 8.39        |
| GS m3.5-063  | 3.5 | 63 | 8  | 80.44          | 80.40  | 227.5         | 220.5 | 213.2 | 20 | 29    | 8.67        |
| GS m3.5-064  | 3.5 | 64 | 8  | 80.49          | 80.45  | 231.0         | 224.0 | 216.7 | 20 | 29    | 8.95        |
| GS m3.5-065  | 3.5 | 65 | 8  | 80.54          | 80.50  | 234.5         | 227.5 | 220.2 | 20 | 29    | 9.23        |
| GS m3.5-066  | 3.5 | 66 | 8  | 80.59          | 80.55  | 238.0         | 231.0 | 223.7 | 20 | 29    | 9.52        |
| GS m3.5-067  | 3.5 | 67 | 8  | 80.64          | 80.60  | 241.5         | 234.5 | 227.2 | 20 | 29    | 9.81        |
| GS m3.5-068  | 3.5 | 68 | 9  | 91.02          | 90.98  | 245.0         | 238.0 | 230.7 | 20 | 29    | 10.11       |
| GS m3.5-069  | 3.5 | 69 | 9  | 91.07          | 91.03  | 248.5         | 241.5 | 234.2 | 20 | 29    | 10.41       |
| GS m3.5-070  | 3.5 | 70 | 9  | 91.12          | 91.08  | 252.0         | 245.0 | 237.7 | 20 | 29    | 10.72       |
| GS m3.5-071  | 3.5 | 71 | 9  | 91.17          | 91.13  | 255.5         | 248.5 | 241.2 | 20 | 29    | 11.03       |
| GS m3.5-072  | 3.5 | 72 | 9  | 91.22          | 91.18  | 259.0         | 252.0 | 244.7 | 20 | 29    | 11.34       |
| GS m3.5-073  | 3.5 | 73 | 9  | 91.26          | 91.22  | 262.5         | 255.5 | 248.2 | 20 | 29    | 11.66       |
| GS m3.5-074  | 3.5 | 74 | 9  | 91.31          | 91.27  | 266.0         | 259.0 | 251.7 | 20 | 29    | 11.98       |
| GS m3.5-075  | 3.5 | 75 | 9  | 91.36          | 91.32  | 269.5         | 262.5 | 255.2 | 20 | 29    | 12.31       |
| GS m3.5-076  | 3.5 | 76 | 9  | 91.41          | 91.37  | 273.0         | 266.0 | 258.7 | 20 | 29    | 12.64       |
| GS m3.5-077  | 3.5 | 77 | 10 | 101.79         | 101.75 | 276.5         | 269.5 | 262.2 | 20 | 29    | 12.98       |
| GS m3.5-078  | 3.5 | 78 | 10 | 101.84         | 101.80 | 280.0         | 273.0 | 265.7 | 20 | 29    | 13.32       |
| GS m3.5-079  | 3.5 | 79 | 10 | 101.89         | 101.85 | 283.5         | 276.5 | 269.2 | 20 | 29    | 13.67       |
| GS m3.5-080  | 3.5 | 80 | 10 | 101.94         | 101.90 | 287.0         | 280.0 | 272.7 | 20 | 29    | 14.02       |
| GS m3.5-081  | 3.5 | 81 | 10 | 101.99         | 101.95 | 290.5         | 283.5 | 276.2 | 20 | 29    | 14.37       |

| Product Code | mn  | z   | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|-----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |     |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m3.5-082  | 3.5 | 82  | 10 | 102.03         | 101.99 | 294.0         | 287.0 | 279.7 | 20 | 29    | 14.73       |
| GS m3.5-083  | 3.5 | 83  | 10 | 102.06         | 102.02 | 297.5         | 290.5 | 283.2 | 20 | 29    | 15.09       |
| GS m3.5-084  | 3.5 | 84  | 10 | 102.13         | 102.09 | 301.0         | 294.0 | 286.7 | 20 | 29    | 15.46       |
| GS m3.5-085  | 3.5 | 85  | 10 | 102.17         | 102.13 | 304.5         | 297.5 | 290.2 | 20 | 29    | 15.83       |
| GS m3.5-086  | 3.5 | 86  | 11 | 112.56         | 112.52 | 308.0         | 301.0 | 293.7 | 20 | 29    | 16.21       |
| GS m3.5-087  | 3.5 | 87  | 11 | 112.61         | 112.57 | 311.5         | 304.5 | 297.2 | 20 | 29    | 16.59       |
| GS m3.5-088  | 3.5 | 88  | 11 | 112.66         | 112.62 | 315.0         | 308.0 | 300.7 | 20 | 29    | 16.98       |
| GS m3.5-089  | 3.5 | 89  | 11 | 112.71         | 112.67 | 318.5         | 311.5 | 304.2 | 20 | 29    | 17.37       |
| GS m3.5-090  | 3.5 | 90  | 11 | 112.76         | 112.72 | 322.0         | 315.0 | 307.7 | 20 | 29    | 17.76       |
| GS m3.5-091  | 3.5 | 91  | 11 | 112.81         | 112.77 | 325.5         | 318.5 | 311.2 | 20 | 29    | 18.16       |
| GS m3.5-092  | 3.5 | 92  | 11 | 112.86         | 112.82 | 329.0         | 322.0 | 314.7 | 20 | 29    | 18.56       |
| GS m3.5-093  | 3.5 | 93  | 11 | 112.91         | 112.87 | 332.5         | 325.5 | 318.2 | 20 | 29    | 18.97       |
| GS m3.5-094  | 3.5 | 94  | 11 | 112.96         | 112.92 | 336.0         | 329.0 | 321.7 | 20 | 29    | 19.38       |
| GS m3.5-095  | 3.5 | 95  | 12 | 123.34         | 123.30 | 339.5         | 332.5 | 325.2 | 20 | 29    | 19.80       |
| GS m3.5-096  | 3.5 | 96  | 12 | 123.39         | 123.35 | 343.0         | 336.0 | 328.7 | 20 | 29    | 20.22       |
| GS m3.5-097  | 3.5 | 97  | 12 | 123.44         | 123.40 | 346.5         | 339.5 | 332.2 | 20 | 29    | 20.64       |
| GS m3.5-098  | 3.5 | 98  | 12 | 123.49         | 123.45 | 350.0         | 343.0 | 335.7 | 20 | 29    | 21.07       |
| GS m3.5-099  | 3.5 | 99  | 12 | 123.54         | 123.50 | 353.5         | 346.5 | 339.2 | 20 | 29    | 21.50       |
| GS m3.5-100  | 3.5 | 100 | 12 | 123.59         | 123.55 | 357.0         | 350.0 | 342.7 | 20 | 29    | 21.94       |
| GS m3.5-101  | 3.5 | 101 | 12 | 123.63         | 123.59 | 360.5         | 353.5 | 346.2 | 20 | 29    | 22.38       |
| GS m3.5-102  | 3.5 | 102 | 12 | 123.68         | 123.64 | 364.0         | 357.0 | 349.7 | 20 | 29    | 22.83       |
| GS m3.5-103  | 3.5 | 103 | 12 | 123.73         | 123.69 | 367.5         | 360.5 | 353.2 | 20 | 29    | 23.28       |
| GS m3.5-104  | 3.5 | 104 | 13 | 134.11         | 134.07 | 371.0         | 364.0 | 356.7 | 20 | 29    | 23.74       |
| GS m3.5-105  | 3.5 | 105 | 13 | 134.16         | 134.12 | 374.5         | 367.5 | 360.2 | 20 | 29    | 24.20       |
| GS m3.5-106  | 3.5 | 106 | 13 | 134.21         | 134.17 | 378.0         | 371.0 | 363.7 | 20 | 29    | 24.66       |
| GS m3.5-107  | 3.5 | 107 | 13 | 134.26         | 134.22 | 381.5         | 374.5 | 367.2 | 20 | 29    | 25.13       |
| GS m3.5-108  | 3.5 | 108 | 13 | 134.31         | 134.27 | 385.0         | 378.0 | 370.7 | 20 | 29    | 25.61       |
| GS m3.5-109  | 3.5 | 109 | 13 | 134.36         | 134.32 | 388.5         | 381.5 | 374.2 | 20 | 29    | 26.08       |
| GS m3.5-110  | 3.5 | 110 | 13 | 134.41         | 134.37 | 392.0         | 385.0 | 377.7 | 20 | 29    | 26.57       |
| GS m3.5-111  | 3.5 | 111 | 13 | 134.46         | 134.42 | 395.5         | 388.5 | 381.2 | 20 | 29    | 27.05       |
| GS m3.5-112  | 3.5 | 112 | 13 | 134.51         | 134.47 | 399.0         | 392.0 | 384.7 | 20 | 29    | 27.54       |
| GS m3.5-113  | 3.5 | 113 | 14 | 144.89         | 144.85 | 402.5         | 395.5 | 388.2 | 20 | 29    | 28.04       |
| GS m3.5-114  | 3.5 | 114 | 14 | 144.94         | 144.90 | 406.0         | 399.0 | 391.7 | 20 | 29    | 28.54       |
| GS m3.5-115  | 3.5 | 115 | 14 | 144.95         | 144.91 | 409.5         | 402.5 | 395.2 | 20 | 29    | 29.04       |
| GS m3.5-116  | 3.5 | 116 | 14 | 145.03         | 144.99 | 413.0         | 406.0 | 398.7 | 20 | 29    | 29.55       |
| GS m3.5-117  | 3.5 | 117 | 14 | 145.08         | 145.04 | 416.5         | 409.5 | 402.2 | 20 | 29    | 30.06       |
| GS m3.5-118  | 3.5 | 118 | 14 | 145.13         | 145.09 | 420.0         | 413.0 | 405.7 | 20 | 29    | 30.58       |
| GS m3.5-119  | 3.5 | 119 | 14 | 145.18         | 145.14 | 423.5         | 416.5 | 409.2 | 20 | 29    | 31.10       |
| GS m3.5-120  | 3.5 | 120 | 14 | 145.23         | 145.19 | 427.0         | 420.0 | 412.7 | 20 | 29    | 31.63       |
| GS m3.5-121  | 3.5 | 121 | 14 | 145.28         | 145.24 | 430.5         | 423.5 | 416.2 | 20 | 29    | 32.16       |
| GS m3.5-122  | 3.5 | 122 | 14 | 145.33         | 145.29 | 434.0         | 427.0 | 419.7 | 20 | 29    | 32.69       |
| GS m3.5-123  | 3.5 | 123 | 14 | 145.38         | 145.34 | 437.5         | 430.5 | 423.2 | 20 | 29    | 33.23       |
| GS m3.5-124  | 3.5 | 124 | 14 | 145.43         | 145.39 | 441.0         | 434.0 | 426.7 | 20 | 29    | 33.78       |
| GS m3.5-125  | 3.5 | 125 | 14 | 145.48         | 145.44 | 444.5         | 437.5 | 430.2 | 20 | 29    | 34.33       |



### Table of Spur Gear Mn 4.0

|   |                       |           |                     |           |           |           |
|---|-----------------------|-----------|---------------------|-----------|-----------|-----------|
|  | Item                  | Symbol    |                     |           |           |           |
|   | Material              |           | DIN 1.0037          |           |           |           |
|   | normal pressure angle | $\psi_n$  | 20                  |           |           |           |
|   | Out Side Diameter     | Da        | $=mn \times (z+2)$  |           |           |           |
|   | Pitch Diameter        | Do        | $=mn \times z$      |           |           |           |
|   | Root Diameter         | Df        | $=Do - 2(mn+0.167)$ |           |           |           |
|   | Bore Diameter         | Db        | -                   |           |           |           |
|   | Thickness             | T         | 19                  |           |           |           |
| Dk  | 0~50                  | 50~150    | 150~250             | 250~350   | 350~450   | 450~      |
| Tolerance   | +0.1/-0.1             | +0.2/-0.2 | +0.2/-0.3           | +0.3/-0.4 | +0.3/-0.4 | +0.3/-0.6 |
| Other tolerances according to ISO 2768-1 m  |                       |           |                     |           |           |           |

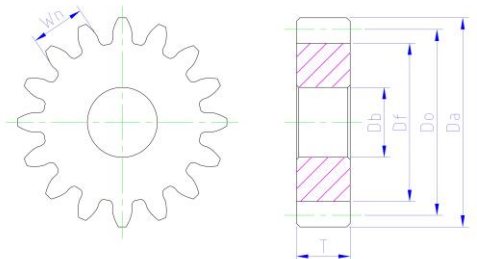
| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do    | Df    | Db |       |             |
| GS m4-010    | 4.0 | 10 | 2  | 18.11          | 18.07 | 48.0          | 40.0  | 31.7  | 15 | 29    | 0.25        |
| GS m4-011    | 4.0 | 11 | 2  | 18.17          | 18.13 | 52.0          | 44.0  | 35.7  | 20 | 29    | 0.28        |
| GS m4-012    | 4.0 | 12 | 2  | 18.23          | 18.19 | 56.0          | 48.0  | 39.7  | 20 | 29    | 0.34        |
| GS m4-013    | 4.0 | 13 | 2  | 18.28          | 18.24 | 60.0          | 52.0  | 43.7  | 20 | 29    | 0.41        |
| GS m4-014    | 4.0 | 14 | 2  | 18.34          | 18.30 | 64.0          | 56.0  | 47.7  | 20 | 29    | 0.49        |
| GS m4-015    | 4.0 | 15 | 2  | 18.39          | 18.35 | 68.0          | 60.0  | 51.7  | 20 | 29    | 0.58        |
| GS m4-016    | 4.0 | 16 | 3  | 30.26          | 30.22 | 72.0          | 64.0  | 55.7  | 20 | 29    | 0.66        |
| GS m4-017    | 4.0 | 17 | 3  | 30.31          | 30.27 | 76.0          | 68.0  | 59.7  | 20 | 29    | 0.76        |
| GS m4-018    | 4.0 | 18 | 3  | 30.37          | 30.33 | 80.0          | 72.0  | 63.7  | 20 | 29    | 0.86        |
| GS m4-019    | 4.0 | 19 | 3  | 30.43          | 30.39 | 84.0          | 76.0  | 67.7  | 20 | 29    | 0.97        |
| GS m4-020    | 4.0 | 20 | 3  | 30.48          | 30.44 | 88.0          | 80.0  | 71.7  | 20 | 29    | 1.08        |
| GS m4-021    | 4.0 | 21 | 3  | 30.54          | 30.50 | 92.0          | 84.0  | 75.7  | 20 | 29    | 1.20        |
| GS m4-022    | 4.0 | 22 | 3  | 30.59          | 30.55 | 96.0          | 88.0  | 79.7  | 20 | 29    | 1.32        |
| GS m4-023    | 4.0 | 23 | 3  | 30.65          | 30.61 | 100.0         | 92.0  | 83.7  | 20 | 29    | 1.45        |
| GS m4-024    | 4.0 | 24 | 4  | 42.51          | 42.47 | 104.0         | 96.0  | 87.7  | 20 | 29    | 1.58        |
| GS m4-025    | 4.0 | 25 | 4  | 42.57          | 42.53 | 108.0         | 100.0 | 91.7  | 20 | 29    | 1.73        |
| GS m4-026    | 4.0 | 26 | 4  | 42.63          | 42.59 | 112.0         | 104.0 | 95.7  | 20 | 29    | 1.87        |
| GS m4-027    | 4.0 | 27 | 4  | 42.68          | 42.64 | 116.0         | 108.0 | 99.7  | 20 | 29    | 2.02        |
| GS m4-028    | 4.0 | 28 | 4  | 42.74          | 42.70 | 120.0         | 112.0 | 103.7 | 20 | 29    | 2.18        |
| GS m4-029    | 4.0 | 29 | 4  | 42.79          | 42.75 | 124.0         | 116.0 | 107.7 | 20 | 29    | 2.35        |
| GS m4-030    | 4.0 | 30 | 4  | 42.85          | 42.81 | 128.0         | 120.0 | 111.7 | 20 | 29    | 2.52        |
| GS m4-031    | 4.0 | 31 | 4  | 42.91          | 42.87 | 132.0         | 124.0 | 115.7 | 20 | 29    | 2.69        |
| GS m4-032    | 4.0 | 32 | 4  | 42.96          | 42.92 | 136.0         | 128.0 | 119.7 | 20 | 29    | 2.87        |
| GS m4-033    | 4.0 | 33 | 5  | 54.83          | 54.79 | 140.0         | 132.0 | 123.7 | 20 | 29    | 3.06        |
| GS m4-034    | 4.0 | 34 | 5  | 54.88          | 54.84 | 144.0         | 136.0 | 127.7 | 20 | 29    | 3.25        |
| GS m4-035    | 4.0 | 35 | 5  | 54.94          | 54.90 | 148.0         | 140.0 | 131.7 | 20 | 29    | 3.45        |
| GS m4-036    | 4.0 | 36 | 5  | 55.00          | 54.96 | 152.0         | 144.0 | 135.7 | 20 | 29    | 3.65        |
| GS m4-037    | 4.0 | 37 | 5  | 55.05          | 55.01 | 156.0         | 148.0 | 139.7 | 20 | 29    | 3.86        |
| GS m4-038    | 4.0 | 38 | 5  | 55.12          | 55.08 | 160.0         | 152.0 | 143.7 | 20 | 29    | 4.08        |
| GS m4-039    | 4.0 | 39 | 5  | 55.16          | 55.12 | 164.0         | 156.0 | 147.7 | 20 | 29    | 4.30        |



| Product Code | mn  | z  | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m4-040    | 4.0 | 40 | 5  | 55.22          | 55.18  | 168.0         | 160.0 | 151.7 | 20 | 29    | 4.53        |
| GS m4-041    | 4.0 | 41 | 6  | 67.08          | 67.04  | 172.0         | 164.0 | 155.7 | 20 | 29    | 4.76        |
| GS m4-042    | 4.0 | 42 | 6  | 67.14          | 67.10  | 176.0         | 168.0 | 159.7 | 20 | 29    | 5.00        |
| GS m4-043    | 4.0 | 43 | 6  | 67.20          | 67.16  | 180.0         | 172.0 | 163.7 | 20 | 29    | 5.24        |
| GS m4-044    | 4.0 | 44 | 6  | 67.25          | 67.21  | 184.0         | 176.0 | 167.7 | 20 | 29    | 5.49        |
| GS m4-045    | 4.0 | 45 | 6  | 67.31          | 67.27  | 188.0         | 180.0 | 171.7 | 20 | 29    | 5.75        |
| GS m4-046    | 4.0 | 46 | 6  | 67.36          | 67.32  | 192.0         | 184.0 | 175.7 | 20 | 29    | 6.01        |
| GS m4-047    | 4.0 | 47 | 6  | 67.42          | 67.38  | 196.0         | 188.0 | 179.7 | 20 | 29    | 6.28        |
| GS m4-048    | 4.0 | 48 | 6  | 67.48          | 67.44  | 200.0         | 192.0 | 183.7 | 20 | 29    | 6.55        |
| GS m4-049    | 4.0 | 49 | 6  | 67.53          | 67.49  | 204.0         | 196.0 | 187.7 | 20 | 29    | 6.83        |
| GS m4-050    | 4.0 | 50 | 7  | 79.40          | 79.36  | 208.0         | 200.0 | 191.7 | 20 | 29    | 7.12        |
| GS m4-051    | 4.0 | 51 | 7  | 79.45          | 79.41  | 212.0         | 204.0 | 195.7 | 20 | 29    | 7.41        |
| GS m4-052    | 4.0 | 52 | 7  | 79.51          | 79.47  | 216.0         | 208.0 | 199.7 | 20 | 29    | 7.70        |
| GS m4-053    | 4.0 | 53 | 7  | 79.56          | 79.52  | 220.0         | 212.0 | 203.7 | 20 | 29    | 8.00        |
| GS m4-054    | 4.0 | 54 | 7  | 79.62          | 79.58  | 224.0         | 216.0 | 207.7 | 20 | 29    | 8.31        |
| GS m4-055    | 4.0 | 55 | 7  | 79.68          | 79.64  | 228.0         | 220.0 | 211.7 | 20 | 29    | 8.63        |
| GS m4-056    | 4.0 | 56 | 7  | 79.73          | 79.69  | 232.0         | 224.0 | 215.7 | 20 | 29    | 8.95        |
| GS m4-057    | 4.0 | 57 | 7  | 79.79          | 79.75  | 236.0         | 228.0 | 219.7 | 20 | 29    | 9.27        |
| GS m4-058    | 4.0 | 58 | 7  | 79.84          | 79.80  | 240.0         | 232.0 | 223.7 | 20 | 29    | 9.60        |
| GS m4-059    | 4.0 | 59 | 8  | 91.71          | 91.67  | 244.0         | 236.0 | 227.7 | 20 | 29    | 9.94        |
| GS m4-060    | 4.0 | 60 | 8  | 91.77          | 91.73  | 248.0         | 240.0 | 231.7 | 20 | 29    | 10.28       |
| GS m4-061    | 4.0 | 61 | 8  | 91.82          | 91.78  | 252.0         | 244.0 | 235.7 | 20 | 29    | 10.63       |
| GS m4-062    | 4.0 | 62 | 8  | 91.88          | 91.84  | 256.0         | 248.0 | 239.7 | 20 | 29    | 10.98       |
| GS m4-063    | 4.0 | 63 | 8  | 91.93          | 91.89  | 260.0         | 252.0 | 243.7 | 20 | 29    | 11.34       |
| GS m4-064    | 4.0 | 64 | 8  | 91.99          | 91.95  | 264.0         | 256.0 | 247.7 | 20 | 29    | 11.71       |
| GS m4-065    | 4.0 | 65 | 8  | 92.05          | 92.01  | 268.0         | 260.0 | 251.7 | 20 | 29    | 12.08       |
| GS m4-066    | 4.0 | 66 | 8  | 92.10          | 92.06  | 272.0         | 264.0 | 255.7 | 20 | 29    | 12.45       |
| GS m4-067    | 4.0 | 67 | 8  | 92.16          | 92.12  | 276.0         | 268.0 | 259.7 | 20 | 29    | 12.84       |
| GS m4-068    | 4.0 | 68 | 9  | 104.02         | 103.98 | 280.0         | 272.0 | 263.7 | 20 | 29    | 13.22       |
| GS m4-069    | 4.0 | 69 | 9  | 104.08         | 104.04 | 284.0         | 276.0 | 267.7 | 20 | 29    | 13.62       |
| GS m4-070    | 4.0 | 70 | 9  | 104.13         | 104.09 | 288.0         | 280.0 | 271.7 | 20 | 29    | 14.02       |
| GS m4-071    | 4.0 | 71 | 9  | 104.19         | 104.15 | 292.0         | 284.0 | 275.7 | 20 | 29    | 14.42       |
| GS m4-072    | 4.0 | 72 | 9  | 104.25         | 104.21 | 296.0         | 288.0 | 279.7 | 20 | 29    | 14.83       |
| GS m4-073    | 4.0 | 73 | 9  | 104.30         | 104.26 | 300.0         | 292.0 | 283.7 | 20 | 29    | 15.25       |
| GS m4-074    | 4.0 | 74 | 9  | 104.36         | 104.32 | 304.0         | 296.0 | 287.7 | 20 | 29    | 15.67       |
| GS m4-075    | 4.0 | 75 | 9  | 104.41         | 104.37 | 308.0         | 300.0 | 291.7 | 20 | 29    | 16.10       |
| GS m4-076    | 4.0 | 76 | 9  | 104.47         | 104.43 | 312.0         | 304.0 | 295.7 | 20 | 29    | 16.54       |
| GS m4-077    | 4.0 | 77 | 10 | 116.33         | 116.29 | 316.0         | 308.0 | 299.7 | 20 | 29    | 16.98       |
| GS m4-078    | 4.0 | 78 | 10 | 116.39         | 116.35 | 320.0         | 312.0 | 303.7 | 20 | 29    | 17.42       |
| GS m4-079    | 4.0 | 79 | 10 | 116.45         | 116.41 | 324.0         | 316.0 | 307.7 | 20 | 29    | 17.87       |
| GS m4-080    | 4.0 | 80 | 10 | 116.50         | 116.46 | 328.0         | 320.0 | 311.7 | 20 | 29    | 18.33       |
| GS m4-081    | 4.0 | 81 | 10 | 116.56         | 116.52 | 332.0         | 324.0 | 315.7 | 20 | 29    | 18.79       |

| Product Code | mn  | z   | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|-----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |     |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m4-082    | 4.0 | 82  | 10 | 116.60         | 116.56 | 336.0         | 328.0 | 319.7 | 20 | 29    | 19.26       |
| GS m4-083    | 4.0 | 83  | 10 | 116.64         | 116.60 | 340.0         | 332.0 | 323.7 | 20 | 29    | 19.74       |
| GS m4-084    | 4.0 | 84  | 10 | 116.72         | 116.68 | 344.0         | 336.0 | 327.7 | 20 | 29    | 20.22       |
| GS m4-085    | 4.0 | 85  | 10 | 116.76         | 116.72 | 348.0         | 340.0 | 331.7 | 20 | 29    | 20.70       |
| GS m4-086    | 4.0 | 86  | 11 | 128.64         | 128.60 | 352.0         | 344.0 | 335.7 | 20 | 29    | 21.19       |
| GS m4-087    | 4.0 | 87  | 11 | 128.70         | 128.66 | 356.0         | 348.0 | 339.7 | 20 | 29    | 21.69       |
| GS m4-088    | 4.0 | 88  | 11 | 128.76         | 128.72 | 360.0         | 352.0 | 343.7 | 20 | 29    | 22.19       |
| GS m4-089    | 4.0 | 89  | 11 | 128.81         | 128.77 | 364.0         | 356.0 | 347.7 | 20 | 29    | 22.70       |
| GS m4-090    | 4.0 | 90  | 11 | 128.87         | 128.83 | 368.0         | 360.0 | 351.7 | 20 | 29    | 23.22       |
| GS m4-091    | 4.0 | 91  | 11 | 128.92         | 128.88 | 372.0         | 364.0 | 355.7 | 20 | 29    | 23.74       |
| GS m4-092    | 4.0 | 92  | 11 | 128.98         | 128.94 | 376.0         | 368.0 | 359.7 | 20 | 29    | 24.26       |
| GS m4-093    | 4.0 | 93  | 11 | 129.04         | 129.00 | 380.0         | 372.0 | 363.7 | 20 | 29    | 24.80       |
| GS m4-094    | 4.0 | 94  | 11 | 129.09         | 129.05 | 384.0         | 376.0 | 367.7 | 20 | 29    | 25.33       |
| GS m4-095    | 4.0 | 95  | 12 | 140.96         | 140.92 | 388.0         | 380.0 | 371.7 | 20 | 29    | 25.88       |
| GS m4-096    | 4.0 | 96  | 12 | 141.02         | 140.98 | 392.0         | 384.0 | 375.7 | 20 | 29    | 26.43       |
| GS m4-097    | 4.0 | 97  | 12 | 141.07         | 141.03 | 396.0         | 388.0 | 379.7 | 20 | 29    | 26.98       |
| GS m4-098    | 4.0 | 98  | 12 | 141.13         | 141.09 | 400.0         | 392.0 | 383.7 | 20 | 29    | 27.54       |
| GS m4-099    | 4.0 | 99  | 12 | 141.18         | 141.14 | 404.0         | 396.0 | 387.7 | 20 | 29    | 28.11       |
| GS m4-100    | 4.0 | 100 | 12 | 141.24         | 141.20 | 408.0         | 400.0 | 391.7 | 20 | 29    | 28.68       |
| GS m4-101    | 4.0 | 101 | 12 | 141.30         | 141.26 | 412.0         | 404.0 | 395.7 | 20 | 29    | 29.26       |
| GS m4-102    | 4.0 | 102 | 12 | 141.35         | 141.31 | 416.0         | 408.0 | 399.7 | 20 | 29    | 29.84       |
| GS m4-103    | 4.0 | 103 | 12 | 141.41         | 141.37 | 420.0         | 412.0 | 403.7 | 20 | 29    | 30.43       |
| GS m4-104    | 4.0 | 104 | 13 | 153.27         | 153.23 | 424.0         | 416.0 | 407.7 | 20 | 29    | 31.03       |
| GS m4-105    | 4.0 | 105 | 13 | 153.33         | 153.29 | 428.0         | 420.0 | 411.7 | 20 | 29    | 31.63       |
| GS m4-106    | 4.0 | 106 | 13 | 153.38         | 153.34 | 432.0         | 424.0 | 415.7 | 20 | 29    | 32.24       |
| GS m4-107    | 4.0 | 107 | 13 | 153.44         | 153.40 | 436.0         | 428.0 | 419.7 | 20 | 29    | 32.85       |
| GS m4-108    | 4.0 | 108 | 13 | 153.50         | 153.46 | 440.0         | 432.0 | 423.7 | 20 | 29    | 33.47       |
| GS m4-109    | 4.0 | 109 | 13 | 153.55         | 153.51 | 444.0         | 436.0 | 427.7 | 20 | 29    | 34.09       |
| GS m4-110    | 4.0 | 110 | 13 | 153.61         | 153.57 | 448.0         | 440.0 | 431.7 | 20 | 29    | 34.72       |
| GS m4-111    | 4.0 | 111 | 13 | 153.67         | 153.63 | 452.0         | 444.0 | 435.7 | 20 | 29    | 35.35       |
| GS m4-112    | 4.0 | 112 | 13 | 153.72         | 153.68 | 456.0         | 448.0 | 439.7 | 20 | 29    | 36.00       |
| GS m4-113    | 4.0 | 113 | 14 | 165.59         | 165.55 | 460.0         | 452.0 | 443.7 | 20 | 29    | 36.64       |
| GS m4-114    | 4.0 | 114 | 14 | 165.64         | 165.60 | 464.0         | 456.0 | 447.7 | 20 | 29    | 37.30       |
| GS m4-115    | 4.0 | 115 | 14 | 165.66         | 165.62 | 468.0         | 460.0 | 451.7 | 20 | 29    | 37.95       |
| GS m4-116    | 4.0 | 116 | 14 | 165.75         | 165.71 | 472.0         | 464.0 | 455.7 | 20 | 29    | 38.62       |
| GS m4-117    | 4.0 | 117 | 14 | 165.81         | 165.77 | 476.0         | 468.0 | 459.7 | 20 | 29    | 39.29       |
| GS m4-118    | 4.0 | 118 | 14 | 165.87         | 165.83 | 480.0         | 472.0 | 463.7 | 20 | 29    | 39.96       |
| GS m4-119    | 4.0 | 119 | 14 | 165.92         | 165.88 | 484.0         | 476.0 | 467.7 | 20 | 29    | 40.65       |
| GS m4-120    | 4.0 | 120 | 14 | 165.98         | 165.94 | 488.0         | 480.0 | 471.7 | 20 | 29    | 41.33       |
| GS m4-121    | 4.0 | 121 | 14 | 166.03         | 165.99 | 492.0         | 484.0 | 475.7 | 20 | 29    | 42.03       |
| GS m4-122    | 4.0 | 122 | 14 | 166.09         | 166.05 | 496.0         | 488.0 | 479.7 | 20 | 29    | 42.72       |
| GS m4-123    | 4.0 | 123 | 14 | 166.15         | 166.11 | 500.0         | 492.0 | 483.7 | 20 | 29    | 43.43       |
| GS m4-124    | 4.0 | 124 | 14 | 166.20         | 166.16 | 504.0         | 496.0 | 487.7 | 20 | 29    | 44.14       |
| GS m4-125    | 4.0 | 125 | 14 | 166.26         | 166.22 | 508.0         | 500.0 | 491.7 | 20 | 29    | 44.85       |

### Table of Spur Gear Mn 5.0

|   |                       |           |                     |           |           |           |
|---|-----------------------|-----------|---------------------|-----------|-----------|-----------|
|  | Item                  | Symbol    |                     |           |           |           |
|   | Material              |           | DIN 1.0037          |           |           |           |
|   | normal pressure angle | $\psi_n$  | 20                  |           |           |           |
|   | Out Side Diameter     | Da        | $=mn \times (z+2)$  |           |           |           |
|   | Pitch Diameter        | Do        | $=mn \times z$      |           |           |           |
|   | Root Diameter         | Df        | $=Do - 2(mn+0.167)$ |           |           |           |
|   | Bore Diameter         | Db        | -                   |           |           |           |
|   | Thickness             | T         | 39                  |           |           |           |
| Dk  | 0~50                  | 50~150    | 150~250             | 250~350   | 350~450   | 450~      |
| Tolerance   | +0.1/-0.1             | +0.2/-0.2 | +0.2/-0.3           | +0.3/-0.4 | +0.3/-0.4 | +0.3/-0.6 |
| Other tolerances according to ISO 2768-1 m  |                       |           |                     |           |           |           |

| Product Code | mn  | z  | Wn | Span Size (mm) |       | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|-------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min   | Da            | Do    | Df    | Db |       |             |
| GS m5-010    | 5.0 | 10 | 2  | 22.64          | 22.59 | 60.0          | 50.0  | 39.7  | 20 | 39    | 0.51        |
| GS m5-011    | 5.0 | 11 | 2  | 22.71          | 22.66 | 65.0          | 55.0  | 44.7  | 20 | 39    | 0.63        |
| GS m5-012    | 5.0 | 12 | 2  | 22.78          | 22.73 | 70.0          | 60.0  | 49.7  | 20 | 39    | 0.77        |
| GS m5-013    | 5.0 | 13 | 2  | 22.85          | 22.80 | 75.0          | 65.0  | 54.7  | 20 | 39    | 0.92        |
| GS m5-014    | 5.0 | 14 | 2  | 22.92          | 22.87 | 80.0          | 70.0  | 59.7  | 20 | 39    | 1.09        |
| GS m5-015    | 5.0 | 15 | 2  | 22.99          | 22.94 | 85.0          | 75.0  | 64.7  | 20 | 39    | 1.26        |
| GS m5-016    | 5.0 | 16 | 3  | 37.82          | 37.77 | 90.0          | 80.0  | 69.7  | 20 | 39    | 1.45        |
| GS m5-017    | 5.0 | 17 | 3  | 37.89          | 37.84 | 95.0          | 85.0  | 74.7  | 20 | 39    | 1.65        |
| GS m5-018    | 5.0 | 18 | 3  | 37.96          | 37.91 | 100.0         | 90.0  | 79.7  | 20 | 39    | 1.86        |
| GS m5-019    | 5.0 | 19 | 3  | 38.03          | 37.98 | 105.0         | 95.0  | 84.7  | 20 | 39    | 2.08        |
| GS m5-020    | 5.0 | 20 | 3  | 38.10          | 38.05 | 110.0         | 100.0 | 89.7  | 20 | 39    | 2.32        |
| GS m5-021    | 5.0 | 21 | 3  | 38.17          | 38.12 | 115.0         | 105.0 | 94.7  | 20 | 39    | 2.57        |
| GS m5-022    | 5.0 | 22 | 3  | 38.24          | 38.19 | 120.0         | 110.0 | 99.7  | 20 | 39    | 2.83        |
| GS m5-023    | 5.0 | 23 | 3  | 38.31          | 38.26 | 125.0         | 115.0 | 104.7 | 20 | 39    | 3.10        |
| GS m5-024    | 5.0 | 24 | 4  | 53.14          | 53.09 | 130.0         | 120.0 | 109.7 | 20 | 39    | 3.38        |
| GS m5-025    | 5.0 | 25 | 4  | 53.21          | 53.16 | 135.0         | 125.0 | 114.7 | 20 | 39    | 3.68        |
| GS m5-026    | 5.0 | 26 | 4  | 53.28          | 53.23 | 140.0         | 130.0 | 119.7 | 20 | 39    | 3.99        |
| GS m5-027    | 5.0 | 27 | 4  | 53.35          | 53.30 | 145.0         | 135.0 | 124.7 | 20 | 39    | 4.31        |
| GS m5-028    | 5.0 | 28 | 4  | 53.42          | 53.37 | 150.0         | 140.0 | 129.7 | 20 | 39    | 4.64        |
| GS m5-029    | 5.0 | 29 | 4  | 53.49          | 53.44 | 155.0         | 145.0 | 134.7 | 20 | 39    | 4.98        |
| GS m5-030    | 5.0 | 30 | 4  | 53.56          | 53.51 | 160.0         | 150.0 | 139.7 | 20 | 39    | 5.34        |
| GS m5-031    | 5.0 | 31 | 4  | 53.63          | 53.58 | 165.0         | 155.0 | 144.7 | 20 | 39    | 5.71        |
| GS m5-032    | 5.0 | 32 | 4  | 53.70          | 53.65 | 170.0         | 160.0 | 149.7 | 20 | 39    | 6.09        |
| GS m5-033    | 5.0 | 33 | 5  | 68.53          | 68.48 | 175.0         | 165.0 | 154.7 | 20 | 39    | 6.48        |
| GS m5-034    | 5.0 | 34 | 5  | 68.60          | 68.55 | 180.0         | 170.0 | 159.7 | 20 | 39    | 6.89        |
| GS m5-035    | 5.0 | 35 | 5  | 68.67          | 68.62 | 185.0         | 175.0 | 164.7 | 20 | 39    | 7.30        |
| GS m5-036    | 5.0 | 36 | 5  | 68.74          | 68.69 | 190.0         | 180.0 | 169.7 | 20 | 39    | 7.73        |
| GS m5-037    | 5.0 | 37 | 5  | 68.81          | 68.76 | 195.0         | 185.0 | 174.7 | 20 | 39    | 8.17        |
| GS m5-038    | 5.0 | 38 | 5  | 68.89          | 68.84 | 200.0         | 190.0 | 179.7 | 20 | 39    | 8.63        |
| GS m5-039    | 5.0 | 39 | 5  | 68.95          | 68.90 | 205.0         | 195.0 | 184.7 | 20 | 39    | 9.09        |

| Product Code | mn  | z  | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |    |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m5-040    | 5.0 | 40 | 5  | 69.02          | 68.97  | 210.0         | 200.0 | 189.7 | 20 | 39    | 9.57        |
| GS m5-041    | 5.0 | 41 | 6  | 83.86          | 83.81  | 215.0         | 205.0 | 194.7 | 20 | 39    | 10.06       |
| GS m5-042    | 5.0 | 42 | 6  | 83.93          | 83.88  | 220.0         | 210.0 | 199.7 | 20 | 39    | 10.56       |
| GS m5-043    | 5.0 | 43 | 6  | 84.00          | 83.95  | 225.0         | 215.0 | 204.7 | 20 | 39    | 11.07       |
| GS m5-044    | 5.0 | 44 | 6  | 84.07          | 84.02  | 230.0         | 220.0 | 209.7 | 20 | 39    | 11.60       |
| GS m5-045    | 5.0 | 45 | 6  | 84.14          | 84.09  | 235.0         | 225.0 | 214.7 | 20 | 39    | 12.14       |
| GS m5-046    | 5.0 | 46 | 6  | 84.21          | 84.16  | 240.0         | 230.0 | 219.7 | 20 | 39    | 12.69       |
| GS m5-047    | 5.0 | 47 | 6  | 84.28          | 84.23  | 245.0         | 235.0 | 224.7 | 20 | 39    | 13.25       |
| GS m5-048    | 5.0 | 48 | 6  | 84.35          | 84.30  | 250.0         | 240.0 | 229.7 | 20 | 39    | 13.82       |
| GS m5-049    | 5.0 | 49 | 6  | 84.42          | 84.37  | 255.0         | 245.0 | 234.7 | 20 | 39    | 14.41       |
| GS m5-050    | 5.0 | 50 | 7  | 99.25          | 99.20  | 260.0         | 250.0 | 239.7 | 20 | 39    | 15.01       |
| GS m5-051    | 5.0 | 51 | 7  | 99.32          | 99.27  | 265.0         | 255.0 | 244.7 | 20 | 39    | 15.62       |
| GS m5-052    | 5.0 | 52 | 7  | 99.39          | 99.34  | 270.0         | 260.0 | 249.7 | 20 | 39    | 16.24       |
| GS m5-053    | 5.0 | 53 | 7  | 99.46          | 99.41  | 275.0         | 265.0 | 254.7 | 20 | 39    | 16.87       |
| GS m5-054    | 5.0 | 54 | 7  | 99.53          | 99.48  | 280.0         | 270.0 | 259.7 | 20 | 39    | 17.52       |
| GS m5-055    | 5.0 | 55 | 7  | 99.60          | 99.55  | 285.0         | 275.0 | 264.7 | 20 | 39    | 18.18       |
| GS m5-056    | 5.0 | 56 | 7  | 99.67          | 99.62  | 290.0         | 280.0 | 269.7 | 20 | 39    | 18.85       |
| GS m5-057    | 5.0 | 57 | 7  | 99.74          | 99.69  | 295.0         | 285.0 | 274.7 | 20 | 39    | 19.53       |
| GS m5-058    | 5.0 | 58 | 7  | 99.81          | 99.76  | 300.0         | 290.0 | 279.7 | 20 | 39    | 20.23       |
| GS m5-059    | 5.0 | 59 | 8  | 114.64         | 114.59 | 305.0         | 295.0 | 284.7 | 20 | 39    | 20.94       |
| GS m5-060    | 5.0 | 60 | 8  | 114.71         | 114.66 | 310.0         | 300.0 | 289.7 | 20 | 39    | 21.65       |
| GS m5-061    | 5.0 | 61 | 8  | 114.78         | 114.73 | 315.0         | 305.0 | 294.7 | 20 | 39    | 22.39       |
| GS m5-062    | 5.0 | 62 | 8  | 114.85         | 114.80 | 320.0         | 310.0 | 299.7 | 20 | 39    | 23.13       |
| GS m5-063    | 5.0 | 63 | 8  | 114.92         | 114.87 | 325.0         | 315.0 | 304.7 | 20 | 39    | 23.88       |
| GS m5-064    | 5.0 | 64 | 8  | 114.99         | 114.94 | 330.0         | 320.0 | 309.7 | 20 | 39    | 24.65       |
| GS m5-065    | 5.0 | 65 | 8  | 115.06         | 115.01 | 335.0         | 325.0 | 314.7 | 20 | 39    | 25.43       |
| GS m5-066    | 5.0 | 66 | 8  | 115.13         | 115.08 | 340.0         | 330.0 | 319.7 | 20 | 39    | 26.22       |
| GS m5-067    | 5.0 | 67 | 8  | 115.20         | 115.15 | 345.0         | 335.0 | 324.7 | 20 | 39    | 27.03       |
| GS m5-068    | 5.0 | 68 | 9  | 130.03         | 129.98 | 350.0         | 340.0 | 329.7 | 20 | 39    | 27.84       |
| GS m5-069    | 5.0 | 69 | 9  | 130.10         | 130.05 | 355.0         | 345.0 | 334.7 | 20 | 39    | 28.67       |
| GS m5-070    | 5.0 | 70 | 9  | 130.17         | 130.12 | 360.0         | 350.0 | 339.7 | 20 | 39    | 29.51       |
| GS m5-071    | 5.0 | 71 | 9  | 130.24         | 130.19 | 365.0         | 355.0 | 344.7 | 20 | 39    | 30.36       |
| GS m5-072    | 5.0 | 72 | 9  | 130.31         | 130.26 | 370.0         | 360.0 | 349.7 | 20 | 39    | 31.22       |
| GS m5-073    | 5.0 | 73 | 9  | 130.38         | 130.33 | 375.0         | 365.0 | 354.7 | 20 | 39    | 32.10       |
| GS m5-074    | 5.0 | 74 | 9  | 130.45         | 130.40 | 380.0         | 370.0 | 359.7 | 20 | 39    | 32.99       |
| GS m5-075    | 5.0 | 75 | 9  | 130.52         | 130.47 | 385.0         | 375.0 | 364.7 | 20 | 39    | 33.89       |
| GS m5-076    | 5.0 | 76 | 9  | 130.59         | 130.54 | 390.0         | 380.0 | 369.7 | 20 | 39    | 34.80       |
| GS m5-077    | 5.0 | 77 | 10 | 145.42         | 145.37 | 395.0         | 385.0 | 374.7 | 20 | 39    | 35.73       |
| GS m5-078    | 5.0 | 78 | 10 | 145.49         | 145.44 | 400.0         | 390.0 | 379.7 | 20 | 39    | 36.66       |
| GS m5-079    | 5.0 | 79 | 10 | 145.56         | 145.51 | 405.0         | 395.0 | 384.7 | 20 | 39    | 37.61       |
| GS m5-080    | 5.0 | 80 | 10 | 145.63         | 145.58 | 410.0         | 400.0 | 389.7 | 20 | 39    | 38.57       |
| GS m5-081    | 5.0 | 81 | 10 | 145.70         | 145.65 | 415.0         | 405.0 | 394.7 | 20 | 39    | 39.54       |

| Product Code | mn  | z   | Wn | Span Size (mm) |        | Diameter (mm) |       |       |    | T(mm) | Weight (kg) |
|--------------|-----|-----|----|----------------|--------|---------------|-------|-------|----|-------|-------------|
|              |     |     |    | max            | min    | Da            | Do    | Df    | Db |       |             |
| GS m5-082    | 5.0 | 82  | 10 | 145.75         | 145.70 | 420.0         | 410.0 | 399.7 | 20 | 39    | 40.53       |
| GS m5-083    | 5.0 | 83  | 10 | 145.80         | 145.75 | 425.0         | 415.0 | 404.7 | 20 | 39    | 41.53       |
| GS m5-084    | 5.0 | 84  | 10 | 145.90         | 145.85 | 430.0         | 420.0 | 409.7 | 20 | 39    | 42.53       |
| GS m5-085    | 5.0 | 85  | 10 | 145.95         | 145.90 | 435.0         | 425.0 | 414.7 | 20 | 39    | 43.56       |
| GS m5-086    | 5.0 | 86  | 11 | 160.81         | 160.76 | 440.0         | 430.0 | 419.7 | 20 | 39    | 44.59       |
| GS m5-087    | 5.0 | 87  | 11 | 160.88         | 160.83 | 445.0         | 435.0 | 424.7 | 20 | 39    | 45.63       |
| GS m5-088    | 5.0 | 88  | 11 | 160.95         | 160.90 | 450.0         | 440.0 | 429.7 | 20 | 39    | 46.69       |
| GS m5-089    | 5.0 | 89  | 11 | 161.02         | 160.97 | 455.0         | 445.0 | 434.7 | 20 | 39    | 47.76       |
| GS m5-090    | 5.0 | 90  | 11 | 161.09         | 161.04 | 460.0         | 450.0 | 439.7 | 20 | 39    | 48.84       |
| GS m5-091    | 5.0 | 91  | 11 | 161.16         | 161.11 | 465.0         | 455.0 | 444.7 | 20 | 39    | 49.94       |
| GS m5-092    | 5.0 | 92  | 11 | 161.23         | 161.18 | 470.0         | 460.0 | 449.7 | 20 | 39    | 51.04       |
| GS m5-093    | 5.0 | 93  | 11 | 161.30         | 161.25 | 475.0         | 465.0 | 454.7 | 20 | 39    | 52.16       |
| GS m5-094    | 5.0 | 94  | 11 | 161.37         | 161.32 | 480.0         | 470.0 | 459.7 | 20 | 39    | 53.29       |
| GS m5-095    | 5.0 | 95  | 12 | 176.20         | 176.15 | 485.0         | 475.0 | 464.7 | 20 | 39    | 54.43       |
| GS m5-096    | 5.0 | 96  | 12 | 176.27         | 176.22 | 490.0         | 480.0 | 469.7 | 20 | 39    | 55.59       |
| GS m5-097    | 5.0 | 97  | 12 | 176.34         | 176.29 | 495.0         | 485.0 | 474.7 | 20 | 39    | 56.75       |
| GS m5-098    | 5.0 | 98  | 12 | 176.41         | 176.36 | 500.0         | 490.0 | 479.7 | 20 | 39    | 57.93       |
| GS m5-099    | 5.0 | 99  | 12 | 176.48         | 176.43 | 505.0         | 495.0 | 484.7 | 20 | 39    | 59.12       |
| GS m5-100    | 5.0 | 100 | 12 | 176.55         | 176.50 | 510.0         | 500.0 | 489.7 | 20 | 39    | 60.32       |
| GS m5-101    | 5.0 | 101 | 12 | 176.62         | 176.57 | 515.0         | 505.0 | 494.7 | 20 | 39    | 61.54       |
| GS m5-102    | 5.0 | 102 | 12 | 176.69         | 176.64 | 520.0         | 510.0 | 499.7 | 20 | 39    | 62.76       |
| GS m5-103    | 5.0 | 103 | 12 | 176.76         | 176.71 | 525.0         | 515.0 | 504.7 | 20 | 39    | 64.00       |
| GS m5-104    | 5.0 | 104 | 13 | 191.59         | 191.54 | 530.0         | 520.0 | 509.7 | 20 | 39    | 65.25       |
| GS m5-105    | 5.0 | 105 | 13 | 191.66         | 191.61 | 535.0         | 525.0 | 514.7 | 20 | 39    | 66.51       |
| GS m5-106    | 5.0 | 106 | 13 | 191.73         | 191.68 | 540.0         | 530.0 | 519.7 | 20 | 39    | 67.79       |
| GS m5-107    | 5.0 | 107 | 13 | 191.80         | 191.75 | 545.0         | 535.0 | 524.7 | 20 | 39    | 69.08       |
| GS m5-108    | 5.0 | 108 | 13 | 191.87         | 191.82 | 550.0         | 540.0 | 529.7 | 20 | 39    | 70.38       |
| GS m5-109    | 5.0 | 109 | 13 | 191.94         | 191.89 | 555.0         | 545.0 | 534.7 | 20 | 39    | 71.69       |
| GS m5-110    | 5.0 | 110 | 13 | 192.01         | 191.96 | 560.0         | 550.0 | 539.7 | 20 | 39    | 73.01       |
| GS m5-111    | 5.0 | 111 | 13 | 192.08         | 192.03 | 565.0         | 555.0 | 544.7 | 20 | 39    | 74.35       |
| GS m5-112    | 5.0 | 112 | 13 | 192.15         | 192.10 | 570.0         | 560.0 | 549.7 | 20 | 39    | 75.69       |
| GS m5-113    | 5.0 | 113 | 14 | 206.98         | 206.93 | 575.0         | 565.0 | 554.7 | 20 | 39    | 77.05       |
| GS m5-114    | 5.0 | 114 | 14 | 207.05         | 207.00 | 580.0         | 570.0 | 559.7 | 20 | 39    | 78.42       |
| GS m5-115    | 5.0 | 115 | 14 | 207.07         | 207.02 | 585.0         | 575.0 | 564.7 | 20 | 39    | 79.81       |
| GS m5-116    | 5.0 | 116 | 14 | 207.19         | 207.14 | 590.0         | 580.0 | 569.7 | 20 | 39    | 81.20       |
| GS m5-117    | 5.0 | 117 | 14 | 207.26         | 207.21 | 595.0         | 585.0 | 574.7 | 20 | 39    | 82.61       |
| GS m5-118    | 5.0 | 118 | 14 | 207.33         | 207.28 | 600.0         | 590.0 | 579.7 | 20 | 39    | 84.03       |
| GS m5-119    | 5.0 | 119 | 14 | 207.40         | 207.35 | 605.0         | 595.0 | 584.7 | 20 | 39    | 85.46       |
| GS m5-120    | 5.0 | 120 | 14 | 207.47         | 207.42 | 610.0         | 600.0 | 589.7 | 20 | 39    | 86.91       |

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