# GEAR RATIO CHART - 48DP

**Maximum tooth sum = 115**
**Minimum tooth sum = 83**

| Spur / Pinion | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | 8.96 | 9.09 | 9.22 | 9.35 | 9.48 | 9.61 | 9.74 | 9.87 | 10.00 | 10.12 | 10.25 | 10.38 | 10.51 | 10.64 | 10.77 | 10.90 | 11.03 | 11.16 | 11.29 | 11.42 | 11.55 |
| 15 | 8.36 | 8.48 | 8.60 | 8.72 | 8.84 | 8.96 | 9.09 | 9.21 | 9.33 | 9.45 | 9.57 | 9.69 | 9.81 | 9.93 | 10.06 | 10.18 | 10.30 | 10.42 | 10.54 | 10.66 | 10.78 |
| 16 | 7.84 | 7.95 | 8.06 | 8.18 | 8.29 | 8.40 | 8.52 | 8.63 | 8.75 | 8.86 | 8.97 | 9.09 | 9.20 | 9.31 | 9.43 | 9.54 | 9.65 | 9.77 | 9.88 | 10.00 | 10.11 |
| 17 | 7.37 | 7.48 | 7.59 | 7.70 | 7.80 | 7.91 | 8.02 | 8.12 | 8.23 | 8.34 | 8.44 | 8.55 | 8.66 | 8.77 | 8.87 | 8.98 | 9.09 | 9.19 | 9.30 | 9.41 | 9.51 |
| 18 | 6.96 | 7.07 | 7.17 | 7.27 | 7.37 | 7.47 | 7.57 | 7.67 | 7.77 | 7.87 | 7.97 | 8.08 | 8.18 | 8.28 | 8.38 | 8.48 | 8.58 | 8.68 | 8.78 | 8.88 | 8.98 |
| 19 | 6.60 | 6.69 | 6.79 | 6.88 | 6.98 | 7.08 | 7.17 | 7.27 | 7.36 | 7.46 | 7.55 | 7.65 | 7.75 | 7.84 | 7.94 | 8.03 | 8.13 | 8.22 | 8.32 | 8.42 | 8.51 |
| 20 | 6.27 | 6.36 | 6.45 | 6.54 | 6.63 | 6.72 | 6.81 | 6.90 | 7.00 | 7.09 | 7.18 | 7.27 | 7.36 | 7.45 | 7.54 | 7.63 | 7.72 | 7.81 | 7.90 | 8.00 | 8.09 |
| 21 | 5.97 | 6.06 | 6.14 | 6.23 | 6.32 | 6.40 | 6.49 | 6.58 | 6.66 | 6.75 | 6.83 | 6.92 | 7.01 | 7.09 | 7.18 | 7.27 | 7.35 | 7.44 | 7.53 | 7.61 | 7.70 |
| 22 | 5.70 | 5.78 | 5.86 | 5.95 | 6.03 | 6.11 | 6.19 | 6.28 | 6.36 | 6.44 | 6.52 | 6.61 | 6.69 | 6.77 | 6.85 | 6.94 | 7.02 | 7.10 | 7.19 | 7.27 | 7.35 |
| 23 | 5.45 | 5.53 | 5.61 | 5.69 | 5.77 | 5.84 | 5.92 | 6.00 | 6.08 | 6.16 | 6.24 | 6.32 | 6.40 | 6.48 | 6.56 | 6.64 | 6.71 | 6.79 | 6.87 | 6.95 | 7.03 |
| 24 | 5.22 | 5.30 | 5.37 | 5.45 | 5.53 | 5.60 | 5.68 | 5.75 | 5.83 | 5.90 | 5.98 | 6.06 | 6.13 | 6.21 | 6.28 | 6.36 | 6.43 | 6.51 | 6.59 | 6.66 | 6.74 |
| 25 | 5.01 | 5.09 | 5.16 | 5.23 | 5.30 | 5.38 | 5.45 | 5.52 | 5.60 | 5.67 | 5.74 | 5.81 | 5.89 | 5.96 | 6.03 | 6.10 | 6.18 | 6.25 | 6.32 | 6.40 | 6.47 |
| 26 | 4.82 | 4.89 | 4.96 | 5.03 | 5.10 | 5.17 | 5.24 | 5.31 | 5.38 | 5.45 | 5.52 | 5.59 | 5.66 | 5.73 | 5.80 | 5.87 | 5.94 | 6.01 | 6.08 | 6.15 | 6.22 |
| 27 | 4.64 | 4.71 | 4.78 | 4.84 | 4.91 | 4.98 | 5.05 | 5.11 | 5.18 | 5.25 | 5.31 | 5.38 | 5.45 | 5.52 | 5.58 | 5.65 | 5.72 | 5.79 | 5.85 | 5.92 | |
| 28 | 4.48 | 4.54 | 4.61 | 4.67 | 4.74 | 4.80 | 4.87 | 4.93 | 5.00 | 5.06 | 5.12 | 5.19 | 5.25 | 5.32 | 5.38 | 5.45 | 5.51 | 5.58 | 5.64 | | |
| 29 | 4.32 | 4.38 | 4.45 | 4.51 | 4.57 | 4.63 | 4.70 | 4.76 | 4.82 | 4.89 | 4.95 | 5.01 | 5.07 | 5.14 | 5.20 | 5.26 | 5.32 | 5.39 | | | |
| 30 | 4.18 | 4.24 | 4.30 | 4.36 | 4.42 | 4.48 | 4.54 | 4.60 | 4.66 | 4.72 | 4.78 | 4.84 | 4.90 | 4.96 | 5.03 | 5.09 | 5.15 | | | | |
| 31 | 4.04 | 4.10 | 4.16 | 4.22 | 4.28 | 4.34 | 4.39 | 4.45 | 4.51 | 4.57 | 4.63 | 4.69 | 4.75 | 4.80 | 4.86 | 4.92 | | | | | |
| 32 | 3.92 | 3.97 | 4.03 | 4.09 | 4.14 | 4.20 | 4.26 | 4.31 | 4.37 | 4.43 | 4.48 | 4.54 | 4.60 | 4.65 | 4.71 | | | | | | |
| 33 | 3.80 | 3.85 | 3.91 | 3.96 | 4.02 | 4.07 | 4.13 | 4.18 | 4.24 | 4.29 | 4.35 | 4.40 | 4.46 | 4.51 | | | | | | | |
| 34 | 3.68 | 3.74 | 3.79 | 3.85 | 3.90 | 3.95 | 4.01 | 4.06 | 4.11 | 4.17 | 4.22 | 4.27 | 4.33 | | | | | | | | |
| 35 | 3.58 | 3.63 | 3.68 | 3.74 | 3.79 | 3.84 | 3.89 | 3.94 | 4.00 | 4.05 | 4.10 | 4.15 | | | | | | | | | |
| 36 | 3.48 | 3.53 | 3.58 | 3.63 | 3.68 | 3.73 | 3.78 | 3.83 | 3.88 | 3.93 | 3.98 | | | | | | | | | | |
| 37 | 3.39 | 3.43 | 3.48 | 3.53 | 3.58 | 3.63 | 3.68 | 3.73 | 3.78 | 3.83 | | | | | | | | | | | |
| 38 | 3.30 | 3.34 | 3.39 | 3.44 | 3.49 | 3.54 | 3.58 | 3.63 | 3.68 | | | | | | | | | | | | |
| 39 | 3.21 | 3.26 | 3.31 | 3.35 | 3.40 | 3.44 | 3.49 | 3.54 | | | | | | | | | | | | | |
| 40 | 3.13 | 3.18 | 3.22 | 3.27 | 3.31 | 3.36 | 3.40 | | | | | | | | | | | | | | |
| 41 | 3.05 | 3.10 | 3.14 | 3.19 | 3.23 | 3.28 | | | | | | | | | | | | | | | |
| 42 | 2.98 | 3.03 | 3.07 | 3.11 | 3.16 | | | | | | | | | | | | | | | | |
| 43 | 2.91 | 2.95 | 3.00 | 3.04 | | | | | | | | | | | | | | | | | |
| 44 | 2.85 | 2.89 | 2.93 | | | | | | | | | | | | | | | | | | |
| 45 | 2.78 | 2.82 | | | | | | | | | | | | | | | | | | | |
| 46 | 2.72 | | | | | | | | | | | | | | | | | | | | |

## GEAR RATIO CALCULATIONS

**Internal Ratio = 1.8$\dot{1}$ : 1**

**Final Drive Ratio (FDR) = $\frac{\text{SPUR} \times 1.8\dot{1}}{\text{PINION}}$**

**SPUR = $\frac{\text{FDR} \times \text{PINION}}{1.8\dot{1}}$**

**PINION = $\frac{\text{SPUR} \times 1.8\dot{1}}{\text{FDR}}$**

## NOTES

# GEAR RATIO CHART - 64DP

Maximum tooth sum = 154
Minimum tooth sum = 111

| Spur / Pinion | 82 | 90 | 92 | 94 | 96 | 98 | 100 | 102 | 104 | 106 | 108 | 110 | 112 | 114 | 116 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | | 7.79 | 7.96 | 8.13 | 8.31 | 8.48 | 8.65 | 8.83 | 9.00 | 9.17 | 9.35 | 9.52 | 9.69 | 9.87 | 10.04 | 10.38 |
| 22 | | 7.43 | 7.60 | 7.76 | 7.93 | 8.09 | 8.26 | 8.42 | 8.59 | 8.76 | 8.92 | 9.09 | 9.25 | 9.42 | 9.58 | 9.91 |
| 23 | | 7.11 | 7.27 | 7.43 | 7.58 | 7.74 | 7.90 | 8.06 | 8.22 | 8.37 | 8.53 | 8.69 | 8.85 | 9.01 | 9.16 | 9.48 |
| 24 | | 6.81 | 6.96 | 7.12 | 7.27 | 7.42 | 7.57 | 7.72 | 7.87 | 8.03 | 8.18 | 8.33 | 8.48 | 8.63 | 8.78 | 9.09 |
| 25 | | 6.54 | 6.69 | 6.83 | 6.98 | 7.12 | 7.27 | 7.41 | 7.56 | 7.70 | 7.85 | 8.00 | 8.14 | 8.29 | 8.43 | 8.72 |
| 26 | | 6.29 | 6.43 | 6.57 | 6.71 | 6.85 | 6.99 | 7.13 | 7.27 | 7.41 | 7.55 | 7.69 | 7.83 | 7.97 | 8.11 | 8.39 |
| 27 | | 6.06 | 6.19 | 6.32 | 6.46 | 6.59 | 6.73 | 6.86 | 7.00 | 7.13 | 7.27 | 7.40 | 7.54 | 7.67 | 7.81 | 8.08 |
| 28 | | 5.84 | 5.97 | 6.10 | 6.23 | 6.36 | 6.49 | 6.62 | 6.75 | 6.88 | 7.01 | 7.14 | 7.27 | 7.40 | 7.53 | 7.79 |
| 29 | 5.14 | 5.64 | 5.76 | 5.89 | 6.01 | 6.14 | 6.26 | 6.39 | 6.52 | 6.64 | 6.77 | 6.89 | 7.02 | 7.14 | 7.27 | 7.52 |
| 30 | 4.96 | 5.45 | 5.57 | 5.69 | 5.81 | 5.93 | 6.06 | 6.18 | 6.30 | 6.42 | 6.54 | 6.66 | 6.78 | 6.90 | 7.03 | 7.27 |
| 31 | 4.80 | 5.27 | 5.39 | 5.51 | 5.63 | 5.74 | 5.86 | 5.98 | 6.09 | 6.21 | 6.33 | 6.45 | 6.56 | 6.68 | 6.80 | 7.03 |
| 32 | 4.65 | 5.11 | 5.22 | 5.34 | 5.45 | 5.56 | 5.68 | 5.79 | 5.90 | 6.02 | 6.13 | 6.25 | 6.36 | 6.47 | 6.59 | 6.81 |
| 33 | 4.51 | 4.95 | 5.06 | 5.17 | 5.28 | 5.39 | 5.50 | 5.61 | 5.73 | 5.84 | 5.95 | 6.06 | 6.17 | 6.28 | 6.39 | 6.61 |
| 34 | 4.38 | 4.81 | 4.91 | 5.02 | 5.13 | 5.24 | 5.34 | 5.45 | 5.56 | 5.66 | 5.77 | 5.88 | 5.98 | 6.09 | 6.20 | 6.41 |
| 35 | 4.25 | 4.67 | 4.77 | 4.88 | 4.98 | 5.09 | 5.19 | 5.29 | 5.40 | 5.50 | 5.61 | 5.71 | 5.81 | 5.92 | 6.02 | |
| 36 | 4.14 | 4.54 | 4.64 | 4.74 | 4.84 | 4.94 | 5.05 | 5.15 | 5.25 | 5.35 | 5.45 | 5.55 | 5.65 | 5.75 | 5.85 | |
| 37 | 4.02 | 4.42 | 4.52 | 4.61 | 4.71 | 4.81 | 4.91 | 5.01 | 5.11 | 5.20 | 5.30 | 5.40 | 5.50 | 5.60 | 5.70 | |
| 38 | 3.92 | 4.30 | 4.40 | 4.49 | 4.59 | 4.68 | 4.78 | 4.88 | 4.97 | 5.07 | 5.16 | 5.26 | 5.35 | 5.45 | 5.55 | |
| 39 | 3.82 | 4.19 | 4.28 | 4.38 | 4.47 | 4.56 | 4.66 | 4.75 | 4.84 | 4.94 | 5.03 | 5.12 | 5.22 | 5.31 | | |
| 40 | 3.72 | 4.09 | 4.18 | 4.27 | 4.36 | 4.45 | 4.54 | 4.63 | 4.72 | 4.81 | 4.90 | 5.00 | 5.09 | 5.18 | | |
| 41 | 3.63 | 3.99 | 4.07 | 4.16 | 4.25 | 4.34 | 4.43 | 4.52 | 4.61 | 4.70 | 4.78 | 4.87 | 4.96 | | | |
| 42 | 3.54 | 3.89 | 3.98 | 4.06 | 4.15 | 4.24 | 4.32 | 4.41 | 4.50 | 4.58 | 4.67 | 4.76 | 4.84 | | | |
| 43 | 3.46 | 3.80 | 3.89 | 3.97 | 4.05 | 4.14 | 4.22 | 4.31 | 4.39 | 4.48 | 4.56 | 4.65 | 4.73 | | | |
| 44 | 3.38 | 3.71 | 3.80 | 3.88 | 3.96 | 4.04 | 4.13 | 4.21 | 4.29 | 4.38 | 4.46 | 4.54 | | | | |
| 45 | 3.31 | 3.63 | 3.71 | 3.79 | 3.87 | 3.95 | 4.04 | 4.12 | 4.20 | 4.28 | 4.36 | | | | | |
| 46 | 3.24 | 3.55 | 3.63 | 3.71 | 3.79 | 3.87 | 3.95 | 4.03 | 4.11 | 4.18 | 4.26 | | | | | |
| 47 | 3.17 | 3.48 | 3.55 | 3.63 | 3.71 | 3.79 | 3.86 | 3.94 | 4.02 | 4.10 | | | | | | |
| 48 | 3.10 | 3.40 | 3.48 | 3.56 | 3.63 | 3.71 | 3.78 | 3.86 | 3.93 | 4.01 | | | | | | |
| 49 | 3.04 | 3.33 | 3.41 | 3.48 | 3.56 | 3.63 | 3.71 | 3.78 | 3.85 | | | | | | | |
| 50 | 2.98 | 3.27 | 3.34 | 3.41 | 3.49 | 3.56 | 3.63 | 3.70 | 3.78 | | | | | | | |
| 51 | 2.92 | 3.20 | 3.27 | 3.35 | 3.42 | 3.49 | 3.56 | 3.63 | | | | | | | | |
| 52 | 2.86 | 3.14 | 3.21 | 3.28 | 3.35 | 3.42 | 3.49 | 3.56 | | | | | | | | |
| 53 | 2.81 | 3.08 | 3.15 | 3.22 | 3.29 | 3.36 | 3.43 | | | | | | | | | |
| 54 | 2.76 | 3.03 | 3.09 | 3.16 | 3.23 | 3.29 | 3.36 | | | | | | | | | |
| 55 | 2.71 | 2.97 | 3.04 | 3.10 | 3.17 | 3.23 | | | | | | | | | | |
| 56 | 2.66 | 2.92 | 2.98 | 3.05 | 3.11 | 3.18 | | | | | | | | | | |
| 57 | 2.61 | 2.87 | 2.93 | 2.99 | 3.06 | | | | | | | | | | | |
| 58 | 2.57 | 2.82 | 2.88 | 2.94 | 3.00 | | | | | | | | | | | |
| 59 | 2.52 | 2.77 | 2.83 | 2.89 | | | | | | | | | | | | |
| 60 | 2.48 | 2.72 | 2.78 | 2.84 | | | | | | | | | | | | |
| 61 | 2.44 | 2.68 | 2.74 | | | | | | | | | | | | | |
| 62 | 2.40 | 2.63 | 2.69 | | | | | | | | | | | | | |

## GEAR RATIO CALCULATIONS

Internal Ratio = 1.8$\dot{1}$ : 1

$$\text{Final Drive Ratio (FDR)} = \frac{\text{SPUR} \times 1.8\dot{1}}{\text{PINION}}$$

$$\text{SPUR} = \frac{\text{FDR} \times \text{PINION}}{1.8\dot{1}}$$

$$\text{PINION} = \frac{\text{SPUR} \times 1.8\dot{1}}{\text{FDR}}$$

NOTES