

GEAR CHARTS



Sakura Rollout Conversion Methods

(Tire Diameter) × (π) ÷ (Spur Gear) × (Pinion) ÷ (Internal Ratio)

| Sakura Rubber Tire Rollout Chart ( 63mm Diameter) |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Spur Gear 48 Pitch                                |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Spur Gear Size                                    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Pinion Gear                                       | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    |
| 16                                                |       |       |       |       |       |       |       |       |       |       |       |       | 20.32 |
| 17                                                |       |       |       |       |       |       |       |       |       |       |       | 21.85 | 21.58 |
| 18                                                |       |       |       |       |       |       |       |       |       |       | 23.43 | 23.14 | 22.85 |
| 19                                                |       |       |       |       |       |       |       |       |       | 25.04 | 24.73 | 24.42 | 24.12 |
| 20                                                |       |       |       |       |       |       |       |       | 26.70 | 26.36 | 26.03 | 25.71 | 25.39 |
| 21                                                |       |       |       |       |       |       |       | 28.40 | 28.03 | 27.68 | 27.33 | 26.99 | 26.66 |
| 22                                                |       |       |       |       |       |       | 30.14 | 29.75 | 29.37 | 28.99 | 28.63 | 28.28 | 27.93 |
| 23                                                |       |       |       |       |       | 31.93 | 31.51 | 31.10 | 30.70 | 30.31 | 29.93 | 29.56 | 29.20 |
| 24                                                |       |       |       |       | 33.87 | 33.32 | 32.88 | 32.45 | 32.04 | 31.63 | 31.23 | 30.85 | 30.47 |
| 25                                                |       |       |       | 35.66 | 35.29 | 34.71 | 34.25 | 33.80 | 33.37 | 32.95 | 32.54 | 32.13 | 31.74 |
| 26                                                |       |       | 37.60 | 37.08 | 36.70 | 36.09 | 35.62 | 35.16 | 34.71 | 34.27 | 33.84 | 33.42 | 33.01 |
| 27                                                |       | 39.59 | 39.04 | 38.51 | 38.11 | 37.48 | 36.99 | 36.51 | 36.04 | 35.58 | 35.14 | 34.71 | 34.28 |
| 28                                                | 41.65 | 41.06 | 40.49 | 39.93 | 39.52 | 38.87 | 38.36 | 37.86 | 37.37 | 36.90 | 36.44 | 35.99 | 35.55 |
| 29                                                | 43.13 | 42.53 | 41.94 | 41.36 | 40.93 | 40.26 | 39.73 | 39.21 | 38.71 | 38.22 | 37.74 | 37.28 | 36.82 |
| 30                                                | 44.62 | 43.99 | 43.38 | 42.79 | 42.34 | 41.65 | 41.10 | 40.56 | 40.04 | 39.54 | 39.04 | 38.56 | 38.09 |
| 31                                                | 46.11 | 45.46 | 44.83 | 44.21 | 43.75 | 43.03 | 42.47 | 41.92 | 41.38 | 40.86 | 40.34 | 39.85 | 39.36 |
| 32                                                | 47.60 | 46.93 | 46.27 | 45.64 | 45.17 | 44.42 | 43.84 | 43.27 | 42.71 | 42.17 | 41.65 | 41.13 |       |
| 33                                                | 49.08 | 48.39 | 47.72 | 47.07 | 46.58 | 45.81 | 45.21 | 44.62 | 44.05 | 43.49 | 42.95 |       |       |
| 34                                                | 50.57 | 49.86 | 49.17 | 48.49 | 47.99 | 47.20 | 46.58 | 45.97 | 45.38 | 44.81 |       |       |       |
| 35                                                | 52.06 | 51.32 | 50.61 | 49.92 | 49.40 | 48.59 | 47.95 | 47.33 | 46.72 |       |       |       |       |
| 36                                                | 53.55 | 52.79 | 52.06 | 51.34 | 50.81 | 49.98 | 49.32 | 48.68 |       |       |       |       |       |
| 37                                                | 55.03 | 54.26 | 53.50 | 52.77 | 52.22 | 51.36 | 50.69 |       |       |       |       |       |       |
| 38                                                | 56.52 | 55.72 | 54.95 | 54.20 | 53.64 | 52.75 |       |       |       |       |       |       |       |
| 39                                                | 58.01 | 57.19 | 56.40 | 55.62 | 55.05 |       |       |       |       |       |       |       |       |
| 40                                                | 59.49 | 58.66 | 57.84 | 57.05 |       |       |       |       |       |       |       |       |       |

| Sakura Rubber Tire Rollout Chart ( 63mm Diameter) |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Spur Gear 64 Pitch                                |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Spur Gear Size                                    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Pinion Gear                                       | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   | 105   |
| 21                                                |       |       |       |       |       |       |       |       |       |       |       |       | 19.88 |
| 22                                                |       |       |       |       |       |       |       |       |       |       |       |       | 21.01 |
| 23                                                |       |       |       |       |       |       |       |       |       |       |       | 22.17 | 21.97 |
| 24                                                |       |       |       |       |       |       |       |       |       |       |       | 23.35 | 23.14 |
| 25                                                |       |       |       |       |       |       |       |       |       |       |       | 24.56 | 24.33 |
| 26                                                |       |       |       |       |       |       |       |       |       |       | 25.86 | 25.54 | 25.30 |
| 27                                                |       |       |       |       |       |       |       |       |       | 27.03 | 26.86 | 26.52 | 26.27 |
| 28                                                |       |       |       |       |       |       |       |       |       | 28.30 | 28.03 | 27.85 | 27.50 |
| 29                                                |       |       |       |       |       |       |       |       | 29.60 | 29.31 | 29.03 | 28.85 | 28.48 |
| 30                                                |       |       |       |       |       |       |       |       | 30.93 | 30.62 | 30.32 | 30.03 | 29.84 |
| 31                                                |       |       |       |       |       |       |       | 32.28 | 31.96 | 31.64 | 31.34 | 31.03 | 30.84 |
| 32                                                |       |       |       |       |       |       | 33.65 | 33.32 | 32.99 | 32.66 | 32.35 | 32.04 | 31.83 |
| 33                                                |       |       |       |       |       | 35.06 | 34.71 | 34.36 | 34.02 | 33.68 | 33.36 | 33.04 | 32.83 |
| 34                                                |       |       |       |       | 36.49 | 36.12 | 35.76 | 35.40 | 35.05 | 34.71 | 34.37 | 34.04 | 33.82 |
| 35                                                |       |       |       | 37.96 | 37.57 | 37.18 | 36.81 | 36.44 | 36.08 | 35.73 | 35.38 | 35.04 | 34.82 |
| 36                                                |       |       | 39.45 | 39.04 | 38.64 | 38.25 | 37.86 | 37.48 | 37.11 | 36.75 | 36.39 | 36.04 | 35.81 |
| 37                                                |       | 40.98 | 40.55 | 40.13 | 39.71 | 39.31 | 38.91 | 38.52 | 38.14 | 37.77 | 37.40 | 37.04 | 36.81 |
| 38                                                | 42.54 | 42.09 | 41.65 | 41.21 | 40.79 | 40.37 | 39.96 | 39.56 | 39.17 | 38.79 | 38.41 | 38.04 | 37.80 |
| 39                                                | 43.66 | 43.20 | 42.74 | 42.30 | 41.86 | 41.43 | 41.02 | 40.61 | 40.20 | 39.81 | 39.42 | 39.04 | 38.79 |
| 40                                                | 44.78 | 44.30 | 43.84 | 43.38 | 42.93 | 42.50 | 42.07 | 41.65 | 41.23 | 40.83 | 40.43 | 40.04 | 39.79 |
| 41                                                | 45.90 | 45.41 | 44.93 | 44.47 | 44.01 | 43.56 | 43.12 | 42.69 | 42.26 | 41.85 | 41.44 | 41.05 | 40.78 |
| 42                                                | 47.02 | 46.52 | 46.03 | 45.55 | 45.08 | 44.62 | 44.17 | 43.73 | 43.30 | 42.87 | 42.45 | 42.05 | 41.78 |
| 43                                                | 48.14 | 47.63 | 47.13 | 46.64 | 46.15 | 45.68 | 45.22 | 44.77 | 44.33 | 43.89 | 43.47 | 43.05 | 42.77 |
| 44                                                | 49.26 | 48.74 | 48.22 | 47.72 | 47.23 | 46.75 | 46.27 | 45.81 | 45.36 | 44.91 | 44.48 | 44.05 | 43.77 |
| 45                                                | 50.38 | 49.84 | 49.32 | 48.80 | 48.30 | 47.81 | 47.33 | 46.85 | 46.39 | 45.93 | 45.49 | 45.05 | 44.78 |
| 46                                                | 51.50 | 50.95 | 50.41 | 49.89 | 49.37 | 48.87 | 48.38 | 47.89 | 47.42 | 46.95 | 46.50 | 46.05 | 45.76 |
| 47                                                | 52.62 | 52.06 | 51.51 | 50.97 | 50.45 | 49.93 | 49.43 | 48.93 | 48.45 | 47.97 | 47.51 | 47.05 |       |
| 48                                                | 53.74 | 53.17 | 52.61 | 52.06 | 51.52 | 51.00 | 50.48 | 49.98 | 49.48 | 49.00 | 48.52 |       |       |
| 49                                                | 54.86 | 54.27 | 53.70 | 53.14 | 52.59 | 52.06 | 51.53 | 51.02 | 50.51 | 50.02 |       |       |       |
| 50                                                | 55.98 | 55.38 | 54.80 | 54.23 | 53.67 | 53.12 | 52.58 | 52.06 | 51.54 |       |       |       |       |
| 51                                                | 57.10 | 56.49 | 55.89 | 55.31 | 54.74 | 54.18 | 53.64 | 53.10 |       |       |       |       |       |
| 52                                                | 58.22 | 57.60 | 56.99 | 56.40 | 55.81 | 55.25 | 54.69 |       |       |       |       |       |       |
| 53                                                | 59.33 | 58.70 | 58.09 | 57.48 | 56.89 | 56.31 |       |       |       |       |       |       |       |

| Foam Tire Rollout Chart ( 81T 48 Pitch) |        |        |        |        |        |        |        |        |        |        |        |  |  |
|-----------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|--|
| Tire Diameter                           |        |        |        |        |        |        |        |        |        |        |        |  |  |
| Pinion Gear                             | 53     | 54     | 55     | 56     | 57     | 58     | 59     | 60     | 61     | 62     | 63     |  |  |
| 16                                      | 17.302 | 17.628 | 17.955 | 18.281 | 18.607 | 18.934 | 19.26  | 19.587 | 19.913 | 20.24  | 20.566 |  |  |
| 17                                      | 18.383 | 18.73  | 19.077 | 19.424 | 19.77  | 20.117 | 20.464 | 20.811 | 21.158 | 21.505 | 21.851 |  |  |
| 18                                      | 19.464 | 19.832 | 20.199 | 20.566 | 20.933 | 21.301 | 21.668 | 22.035 | 22.402 | 22.77  | 23.137 |  |  |
| 19                                      | 20.546 | 20.933 | 21.321 | 21.709 | 22.096 | 22.484 | 22.872 | 23.259 | 23.647 | 24.035 | 24.422 |  |  |
| 20                                      | 21.627 | 22.035 | 22.443 | 22.851 | 23.259 | 23.667 | 24.075 | 24.483 | 24.891 | 25.3   | 25.708 |  |  |
| 21                                      | 22.708 | 23.137 | 23.565 | 23.994 | 24.422 | 24.851 | 25.279 | 25.708 | 26.136 | 26.565 | 26.993 |  |  |
| 22                                      | 23.79  | 24.239 | 24.687 | 25.136 | 25.585 | 26.034 | 26.483 | 26.932 | 27.381 | 27.829 | 28.278 |  |  |
| 23                                      | 24.871 | 25.34  | 25.81  | 26.279 | 26.748 | 27.217 | 27.687 | 28.156 | 28.625 | 29.094 | 29.564 |  |  |
| 24                                      | 25.952 | 26.442 | 26.932 | 27.421 | 27.911 | 28.401 | 28.89  | 29.38  | 29.87  | 30.359 | 30.849 |  |  |
| 25                                      | 27.034 | 27.544 | 28.054 | 28.564 | 29.074 | 29.584 | 30.094 | 30.604 | 31.114 | 31.624 | 32.135 |  |  |
| 26                                      | 28.115 | 28.646 | 29.176 | 29.707 | 30.237 | 30.768 | 31.298 | 31.828 | 32.359 | 32.889 | 33.42  |  |  |
| 27                                      | 29.196 | 29.747 | 30.298 | 30.849 | 31.4   | 31.951 | 32.502 | 33.053 | 33.604 | 34.154 | 34.705 |  |  |
| 28                                      | 30.278 | 30.849 | 31.42  | 31.992 | 32.563 | 33.134 | 33.706 | 34.277 | 34.848 | 35.419 | 35.991 |  |  |
| 29                                      | 31.359 | 31.951 | 32.543 | 33.134 | 33.726 | 34.318 | 34.909 | 35.501 | 36.093 | 36.684 | 37.276 |  |  |
| 30                                      | 32.441 | 33.053 | 33.665 | 34.277 | 34.889 | 35.501 | 36.113 | 36.725 | 37.337 | 37.949 | 38.561 |  |  |
| 31                                      | 33.522 | 34.154 | 34.787 | 35.419 | 36.052 | 36.684 | 37.317 | 37.949 | 38.582 | 39.214 | 39.847 |  |  |
| 32                                      | 34.603 | 35.256 | 35.909 | 36.562 | 37.215 | 37.868 | 38.521 | 39.173 | 39.826 | 40.479 | 41.132 |  |  |
| 33                                      | 35.685 | 36.358 | 37.031 | 37.704 | 38.378 | 39.051 | 39.724 | 40.398 | 41.071 | 41.744 | 42.418 |  |  |
| 34                                      | 36.766 | 37.46  | 38.153 | 38.847 | 39.541 | 40.234 | 40.928 | 41.622 | 42.316 | 43.009 | 43.703 |  |  |
| 35                                      | 37.847 | 38.561 | 39.276 | 39.99  | 40.704 | 41.418 | 42.132 | 42.846 | 43.56  | 44.274 | 44.988 |  |  |
| 36                                      | 38.929 | 39.663 | 40.398 | 41.132 | 41.867 | 42.601 | 43.336 | 44.07  | 44.805 | 45.539 | 46.274 |  |  |
| 37                                      | 40.01  | 40.765 | 41.52  | 42.275 | 43.03  | 43.785 | 44.539 | 45.294 | 46.049 | 46.804 | 47.559 |  |  |
| 38                                      | 41.091 | 41.867 | 42.642 | 43.417 | 44.193 | 44.968 | 45.743 | 46.519 | 47.294 | 48.069 | 48.844 |  |  |
| 39                                      | 42.173 | 42.968 | 43.764 | 44.56  | 45.356 | 46.151 | 46.947 | 47.743 | 48.538 | 49.334 | 50.13  |  |  |
| 40                                      | 43.254 | 44.07  | 44.886 | 45.702 | 46.519 | 47.335 | 48.151 | 48.967 | 49.783 | 50.599 | 51.415 |  |  |

| Foam Tire Rollout Chart ( 110T 64 Pitch) |               |        |        |        |        |        |        |        |        |        |        |        |  |  |
|------------------------------------------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|--|
| Pinion Gear                              | Tire Diameter |        |        |        |        |        |        |        |        |        |        |        |  |  |
|                                          | 53            | 54     | 55     | 56     | 57     | 58     | 59     | 60     | 61     | 62     | 63     |        |  |  |
|                                          | 21            | 16.722 | 17.037 | 17.353 | 17.668 | 17.984 | 18.299 | 18.615 | 18.93  | 19.246 | 19.561 | 19.877 |  |  |
|                                          | 22            | 17.518 | 17.848 | 18.179 | 18.509 | 18.84  | 19.171 | 19.501 | 19.832 | 20.162 | 20.493 | 20.823 |  |  |
|                                          | 23            | 18.314 | 18.66  | 19.005 | 19.351 | 19.696 | 20.042 | 20.387 | 20.733 | 21.079 | 21.424 | 21.77  |  |  |
|                                          | 24            | 19.11  | 19.471 | 19.832 | 20.192 | 20.553 | 20.913 | 21.274 | 21.634 | 21.995 | 22.356 | 22.716 |  |  |
|                                          | 25            | 19.907 | 20.282 | 20.658 | 21.033 | 21.409 | 21.785 | 22.161 | 22.536 | 22.911 | 23.287 | 23.663 |  |  |
|                                          | 26            | 20.703 | 21.094 | 21.484 | 21.875 | 22.265 | 22.655 | 23.047 | 23.437 | 23.828 | 24.219 | 24.609 |  |  |
|                                          | 27            | 21.499 | 21.905 | 22.311 | 22.716 | 23.122 | 23.527 | 23.933 | 24.339 | 24.744 | 25.15  | 25.556 |  |  |
|                                          | 28            | 22.296 | 22.716 | 23.137 | 23.558 | 23.978 | 24.397 | 24.82  | 25.24  | 25.661 | 26.082 | 26.502 |  |  |
|                                          | 29            | 23.092 | 23.527 | 23.963 | 24.399 | 24.835 | 25.27  | 25.708 | 26.142 | 26.577 | 27.013 | 27.449 |  |  |
|                                          | 30            | 23.888 | 24.339 | 24.789 | 25.24  | 25.691 | 26.142 | 26.592 | 27.043 | 27.494 | 27.944 | 28.395 |  |  |
|                                          | 31            | 24.684 | 25.15  | 25.616 | 26.082 | 26.547 | 27.013 | 27.479 | 27.944 | 28.41  | 28.876 | 29.342 |  |  |
|                                          | 32            | 25.481 | 25.961 | 26.442 | 26.923 | 27.404 | 27.884 | 28.365 | 28.846 | 29.327 | 29.807 | 30.288 |  |  |
| 33                                       | 26.277        | 26.773 | 27.268 | 27.764 | 28.26  | 28.756 | 29.252 | 29.747 | 30.243 | 30.739 | 31.235 |        |  |  |
| 34                                       | 27.073        | 27.584 | 28.095 | 28.606 | 29.116 | 29.627 | 30.138 | 30.649 | 31.16  | 31.67  | 32.181 |        |  |  |
| 35                                       | 27.869        | 28.395 | 28.921 | 29.447 | 29.973 | 30.499 | 31.024 | 31.55  | 32.076 | 32.602 | 33.128 |        |  |  |
| 36                                       | 28.666        | 29.207 | 29.747 | 30.288 | 30.829 | 31.37  | 31.913 | 32.452 | 32.993 | 33.533 | 34.074 |        |  |  |
| 37                                       | 29.462        | 30.018 | 30.574 | 31.13  | 31.685 | 32.241 | 32.797 | 33.353 | 33.909 | 34.465 | 35.021 |        |  |  |
| 38                                       | 30.258        | 30.829 | 31.4   | 31.971 | 32.542 | 33.113 | 33.684 | 34.255 | 34.825 | 35.396 | 35.967 |        |  |  |
| 39                                       | 31.054        | 31.642 | 32.226 | 32.812 | 33.398 | 33.983 | 34.57  | 35.156 | 35.742 | 36.328 | 36.914 |        |  |  |
| 40                                       | 31.851        | 32.453 | 33.053 | 33.654 | 34.255 | 34.856 | 35.456 | 36.057 | 36.658 | 37.259 | 37.86  |        |  |  |
| 41                                       | 32.647        | 33.263 | 33.879 | 34.495 | 35.111 | 35.727 | 36.343 | 36.959 | 37.575 | 38.191 | 38.807 |        |  |  |
| 42                                       | 33.443        | 34.073 | 34.705 | 35.335 | 35.967 | 36.598 | 37.229 | 37.86  | 38.491 | 39.122 | 39.753 |        |  |  |
| 43                                       | 34.24         | 34.886 | 35.532 | 36.178 | 36.824 | 37.47  | 38.116 | 38.762 | 39.408 | 40.054 | 40.7   |        |  |  |
| 44                                       | 35.036        | 35.697 | 36.358 | 37.019 | 37.68  | 38.341 | 39.002 | 39.663 | 40.324 | 40.985 | 41.646 |        |  |  |
| 45                                       | 35.832        | 36.508 | 37.184 | 37.86  | 38.536 | 39.212 | 39.889 | 40.565 | 41.241 | 41.917 | 42.593 |        |  |  |
| 46                                       | 36.628        | 37.319 | 38.011 | 38.702 | 39.393 | 40.084 | 40.775 | 41.466 | 42.157 | 42.848 | 43.539 |        |  |  |
| 47                                       | 37.425        | 38.13  | 38.837 | 39.543 | 40.249 | 40.955 | 41.661 | 42.367 | 43.074 | 43.78  | 44.486 |        |  |  |
| 48                                       | 38.221        | 38.942 | 39.663 | 40.384 | 41.105 | 41.827 | 42.548 | 43.269 | 43.99  | 44.711 | 45.432 |        |  |  |
| 49                                       | 39.017        | 39.753 | 40.489 | 41.226 | 41.962 | 42.698 | 43.434 | 44.17  | 44.907 | 45.643 | 46.379 |        |  |  |
| 50                                       | 39.813        | 40.565 | 41.316 | 42.067 | 42.818 | 43.569 | 44.321 | 45.072 | 45.823 | 46.574 | 47.325 |        |  |  |
| 51                                       | 40.61         | 41.376 | 42.142 | 42.908 | 43.675 | 44.441 | 45.207 | 45.973 | 46.739 | 47.506 | 48.272 |        |  |  |
| 52                                       | 41.406        | 42.187 | 42.968 | 43.75  | 44.531 | 45.312 | 46.093 | 46.875 | 47.656 | 48.437 | 49.218 |        |  |  |
| 53                                       | 42.202        | 42.998 | 43.795 | 44.591 | 45.387 | 46.184 | 46.98  | 47.776 | 48.572 | 49.369 | 50.165 |        |  |  |